

STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061

voice 847-279-2500 fax 847-279-2510 web www.stsconsultants.com

November 12, 2004



Mr. Fred Micke, On-Scene Coordinator
US Environmental Protection Agency - Region 5
77 W. Jackson Blvd., SE-5J
Chicago, Illinois 60604-3590

RE: Monthly Progress Report for October 2004, 221 N. Columbus Drive, Chicago, Illinois - STS Project No. 1-32193-XC

Dear Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken in October and activities planned for November 2004.

#### **ACTIVITIES COMPLETED IN OCTOBER 2004**

- 1. Construction of a new building (the Regatta) was initiated in September. The Regatta is located immediately north of the Shoreham building along the northern boundary of the Lakeshore East site. The southern portion of the building lot is located within the former boundaries of the north slip. Thus, radiological surveying will be periodically conducted for construction related activities that result in the disturbance of subsurface soil within the former slip area.
- 2. The initial surveying for radiologically-impacted soil at the Regatta site occurred in mid and late September in areas designated for the installation of caissons. Prescreening of the fill soil at each caisson location within the north slip was performed via test pitting to verify the absence of radiologically-impacted soil and avoid potential construction delays associated with the discovery of radiologically-impacted soil during caisson installation. Spoil from each test pit was returned to the excavation if gamma readings do not indicate a level indicative of an impact.
- 3. No radiologically-impacted soils were excavated in October. Therefore, neither personal nor area air monitoring was conducted.

#### PLANNED ACTIVITIES FOR NOVEMBER 2004

- Surveying for radiologically-impacted soil at the Regatta site will continue to be performed periodically for utility and construction related activities that will occur within the boundaries of the former north slip area. Specifically, it is anticipated that the installation of calssons will begin in November with monitoring conducted at those caissons located within the boundary of the former slips.
- 2. The USEPA will be notified upon discovery of any radiologically-impacted materials. Following USEPA notification, excavation activities will take place to remediate radiologically-impacted soil as necessary. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

US Environmental Protection Agency - Region 5 STS Project No. 1-32193-XC November 12, 2004 Page 2

- 3. Comments on the Completion Report and Addendum were received from USEPA on November 2, 2004. Responses to the comments are being developed and will be submitted in November.
- 4. Monthly reports will continue to be submitted to the USEPA until approval of the closure report is received.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Kornder, Ph.D. Senior Project Geochemist

Attachments

cc: Kara Hughes, Lakeshore East, LLC

Sean Bezark, Greenberg Traurig

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC

# STS Consultants, Ltd.

750 Corporate Woods Parkway Vernon Hills, IL 60061 Phone: (847) 279-2500 FAX: (847) 279-2510



## **FACSIMILE TRANSMISSION**

Date:	November 12, 2	004				
To:	Fred Micke		USEPA		Fax #:	312-353-9176
	Kara Hughes		Lakesho	re East, LLC	Fax #:	312-642-2773
	Sean Bezark		Greenbe	ng Traurig	Fax#:	312-456-8435
	Barbara Magel		Karagan	is, White & Magel Ltd	l. Fax#:	312-836-9083
	Mark Krippel		Kerr-Mct	Gee Chemical LLC	Fax #:	630-231-3990
Pages	being transmitte	d, incl. Cover:	3			
CC:			Fax No.:			
From:	Steve Kornder		Phone:	847-279-2500		
Re:	Lakeshore East,	221 N. Columi	ous Dr., Chicago, IL			
Urgen	rt 🔲 For Signature	☐For Review	Please Corement/Repl	As Requested [	Origin <b>a</b> l to	Follow
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**IMPORTANT:** This facsimile is intended only for the of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this facsimile is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return this tacsimile to us at the above address via the United States Postal Service. Thank you.



STS Consultanis, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061-3153

voice 847-279-2500 fax 847-279-2510 web www.stsconsultants.com

October 15, 2004

Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for September 2004, 221 N. Columbus Drive, Chicago, Illinois - STS Project No. 1-32193-XC

Dear Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken in September and activities planned for October 2004.

#### **ACTIVITIES COMPLETED IN SEPTEMBER 2004**

- 1. Construction of a new building (the Regatta) was initiated in September. The Regatta is located immediately north of the Shoreham building along the northern boundary of the Lakeshore East site. The southern portion of the building lot is located within the former boundaries of the north slip. Thus, radiological surveying will be conducted for construction related activities that result in the disturbance of subsurface soll within the former slip area.
- 2. The initial surveying for radiologically-impacted soil at the Regatta site occurred in mid and late September in areas designated for the installation of caissons. Prescreening of the fill soil at each caisson location within the north slip was performed via test pitting to verify the absence of radiologically-impacted soil and avoid potential construction delays associated with the discovery of radiologically-impacted soil during caisson installation. Spoil from each test pit will be returned to the excavation if gamma readings do not indicate a level indicative of an impact.
- 3. Radiologically-impacted soils were not excavated for disposal in September. Therefore, neither personal nor area air monitoring was conducted.

### **PLANNED ACTIVITIES FOR OCTOBER 2004**

- Surveying for radiologically-impacted soil at the Regatta site will continue to be performed in October at caissons located with the former north slip area. The surveying will be conducted in a manner similar to that conducted in September (see discussion above).
- The USEPA will be notified upon discovery of any radiologically-impacted materials. Following
  USEPA notification, excavation activities will take place to remediate radiologically-impacted soil
  as necessary. The USEPA will be requested to conduct verification surveys and sign-off that the
  areas have been successfully remediated.

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.



US Environmental Protection Agency - Region 5 STS Project No. 1-32193-XC Page 2

Monthly reports will to be submitted to the USEPA until approval of the closure report.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

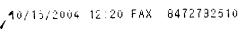
-Steven C. Kornder, Ph.D. Senior Project Geochemist

### **Attachments**

cc: Kara Hughes, Lakeshore East, LLC

Sean Bezark, Greenberg Traurig

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC





Octobor 15, 2004

750 Corporate Woods Parkway Vernon Hills, IL 60061 Phone: (847) 279-2500 FAX: (847) 279-2510

Message:



## **FACSIMILE TRANSMISSION**

-353-9176
-642-2773
-456-843 <b>5</b>
-836-9083
-231-3990
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IMPORTANT: This facsimile is intended only for the of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this facsimile is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return this facsimile to us at the above address via the United States Postal Service. Thank you.

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1-1 279-2500 5-14-14



STS Consultants, Ltd. 750 Corporate Woods Perkway Vernon Hills, Illinois 60061-3153 voice 847-279-2500 5 - / fax 847-279-2510 web www.stsconsultants.com

May 14, 2004

Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for April 2004, 221 N. Columbus Drive, Chicago, Illinois - STS Project

No. 1-32193-XC

Dear Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken in April and activities planned for May 2004.

## **PROGRESS DURING APRIL 2004**

- Surveying for radiologically-impacted soil continued was performed on a periodic basis for utility excavations conducted at the Shoreham site located within the north slip (slip D). No evidence of radiologically-impacted soil was observed.
- 2. No radiologically impacted soils were handled or excavated in April 2004. Therefore, neither personal nor area air monitoring was conducted.

#### PLANNED ACTIVITIES FOR MAY 2004

- 1. The caisson and grade beam excavation activities associated with the Shoreham are generally complete. Thus, there are no specific dates planned for conducting excavation activities that will expose subsurface soil within the former slip areas. However, surveying for radiologically-impacted soil will be conducted within the slip areas if excavation occurs. The USEPA will be notified upon discovery of any radiologically-impacted materials. Following USEPA notification, excavation activities will take place to remediate radiologically-impacted soil as necessary. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- Monthly reports will to be submitted to the USEPA until approval of the closure report.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven J. Komder, Ph.D.

Senior Project Geochemist

Attachments

CC:

Kara Hughes, Lakeshore East, LLC Sean Bezark, Greenberg Traurig Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

# STS Consultants, Ltd.

750 Corporate Woods Parlowy Vernon Hills, E. 60051 Phone: (847) 279-2500 FAX: (947) 279-2510



# **FACSIMILE TRANSMISSION**

Destroc	May 14, 2004					
Tex	Fred Micke		USEPA		Fax #: 312-353-9	r176
	Kara Hughes		Lakeshore Ess	¢ПС	Fex #: 312-642-2	773
	Seen Bezark		Greenberg Tra	urig	Fax #: 312-476-5	027
	Barbera Magel		Kara <b>ganis,</b> Wh	ile & Magel Ltd.	Fax #: 312-836-9	083
	Mark Krippel		Kerr-McGee Cl	nemical LLC	Fax #: 630-231-3	990
Pages	being transmitte	d, incl. Cover:	2			
cc:			Fax No.1			
Pronx	Steve Komder		Phone: 847-	279-2600		
Rec	Lakeshore East,	221 N. Columb	ous Dr., Chicago, N.			
[] (Argon	d [] For Signature	☐For Review	Places Consessiffuply	As Requested	Original to Fellow	

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STS Consultants, Ltd. 750 Corporate Woods Parkway

Vernan Hills, Illinois 60061-3153

voice 847-279-2500 4-12-04-



April 12, 2004

Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

Monthly Progress Report for March 2004, 221 N. Columbus Drive, Chicago, Illinois - STS Project

No. 1-32193-XC

Dear Mr. Micke:

In accordance with the Work Plan<sup>1</sup> ST\$ Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken in March and activities planned for April 2004.

#### **PROGRESS DURING MARCH 2004**

- 1. Surveying for radiologically-impacted soil continued to be performed on a periodic basis for grade beam and caisson excavations conducted at the Shoreham site, which is located within the north slip (slip D). No evidence of radiologically-impacted soil was observed.
- No radiologically impacted soils were handled or excavated in March 2004. Therefore, neither personal nor area air monitoring was conducted.

#### PLANNED ACTIVITIES FOR APRIL 2004

- 1. The caisson and grade beam excavation activities associated with the Shoreham are generally complete. Thus, there are no specific dates planned for conducting excavation activities that will expose subsurface soil within the former slip areas. However, surveying for radiologically-impacted soil will be conducted within the slip areas if excavation occurs. The USEPA will be notified upon discovery of any radiologically-impacted materials. Following USEPA notification, excavation activities will take place to remediate radiologically-impacted soil as necessary. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- Monthly reports will to be submitted to the USEPA until approval of the closure report.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Komder, Ph.D. Senior Project Geochemist

**Attachments** 

cc:

Kara Hughes, Lakeshore East, LLC Sean Bezark, Greenberg Traurig

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC

STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

# STS Consultants, Ltd.

750 Corporate Woods Parlowsy Vernon Hills. IL. 60061 Phone: (847) 279-2500 FAX: (847) 279-2510



## **FACSIMILE TRANSMISSION**

Dates	April 12, 2004					
Toc	Fred Micke		USEPA	**************************************	Fax #: 312-35	3-9176
	Kana Hughes		Lakesho	re East, LLC	Fax #: 312-640	2-2773
	Sean Bezark		Greenbe	rg Traurig	Fax #: 312-470	5-5027
	Barbara Magel		Karagani	s, White & Magel Li	d. Fax #: 312-836	<b>5-908</b> 3
	Mark Krippel		Kerr-McG	Gee Chemical LLC	Fax #: 630-231	1-3990
Pages	being transmitte	d, Incl. Cover:	2			
CC:			Face No.:			
From	Steve Komder		Phone:	847-279-2500		
Rec	Lakeshore East,	221 N Columb	ous Dr., Chicago, IL			
C Urgan	t For Signature	☐ For Parison	Please CommandPaply	As Requested	Original to Follow	
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STS Consultants, Ltd. ,50 Corporate viccus Parkway Vernon Hills, Illinois 60061-3153 voice 847-279-2500
iax 847-279-2510
web www.stsconsultants.com

March 15, 2004

Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for February 2004, 221 N. Columbus Drive, Chicago, Illinois - STS

Project No. 1-32193-XC

Dear Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken in February and activities planned for March 2004.

#### **PROGRESS DURING FEBRUARY 2004**

- 1. Surveying for radiologically-impacted soil continues to be performed on a periodic basis for infrastructure related activities within the former slips area. Surveys of grade beam excavations were conducted periodically in February at the Shoreham site, which is located within the north slip (slip D). No evidence of radiologically-impacted soil was observed.
- 2. No radiologically impacted soils were handled or excavated in February 2004. Therefore, neither personal nor area air monitoring was conducted.

#### **PLANNED ACTIVITIES FOR MARCH 2004**

- 1. There are currently no specific dates for conducting infrastructure activities that will expose subsurface soil within the former slip areas. However, surveying for radiologically-impacted soil will be conducted within the former north slip area where excavations will occur for caissons and grade beams. The USEPA will be notified upon discovery of any radiologically-impacted materials. Following USEPA notification, excavation activities will take place to remediate radiologically-impacted soil as necessary. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 2. Monthly reports will to be submitted to the USEPA until approval of the closure report.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Konsder, Ph.D. Senior Project Geochemist

**Attachments** 

co: Kara Hughes, Lakeshore Last, LLC Sean Bezark, Greenberg Traurig

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC

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<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiclogically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago Phois.



SS

750 Corporate Woods Parkway Vernon Hills, il. 60061 Phone: -847) 279-2500 FAX: 13471-279-2510

Message:

## **FACSIMILE TRANSMISSION**

Detec	March 15, 2004		
To:	Fred Micke	USEPA	Fax #: 312-353-9176
	Kara Hughes	Lakeshore East, LLC	Fax #: 312-642-2773
	Sean Bezark	Greenberg Traurig	Fax #: 312-476-5027
	Barbara Magel	Karaganis, White & Magel Ltd.	Fax #: 312-836-9083
	Mark Krippei	Kerr-McGee Chemical LLC	Fax #: 630-231-3990
Pages	being transmitted, i	ncl Cover: 2	
CC:	<del></del>	Fax No.:	
From:	Steve Kornder	Phone: 847-279-2500	
Re:	Lakeshore East 22	1 N. Columbus Dr., Chicago, IL	
☐ Urgar	t 🗍 for Signature 🛭	☐For Review ☐ Please Comment/Reply ☐ As Requested ☐	Original to Follow

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# STS Consultants, Ltd.

750 Corporate Woods Parkway Vernon Hills, IL 60061 Phone: (847) 279-2500 FAX: (847) 279-2510



# **FACSIMILE TRANSMISSION**

Date:	November 18, 20	003			
To:	Fred Micke		USEPA		Fax #: 312-353-9176
	Kara Hughes		Lakeshor	re East, LLC	Fax #: 312-642-2773
	Sean Bezark		Greenber	rg Traurig	Fax #: 312-476-5027
	Barbara Magel		Karagani	s, White & Magel Ltd.	Fax #: 312-836-9083
	Mark Krippel		Kerr-McG	iee Chemical LLC	Fax #: 630-231-3990
Pages	being transmitted	d, incl. Cover:	13		
CC:			Fax No.:		
From:	Steve Kornder		Phone:	847-279-2500	
Re:	Lakeshore East,	221 N. Columb	ous Dr., Chicago, IL		
Urgen	t 🔲 For Signature	For Review	☐ Please Comment/Reply	As Requested	] Original to Follow
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Messa	ige:				
Monthly	report for Octobe	r			

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November 15, 2003

Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for October 2003, 221 N. Columbus Drive, Chicago, Illinois - STS

Project No. 1-32193-XC

Dear Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken in October 2003 and activities planned for November 2003.

#### **PROGRESS DURING OCTOBER 2003**

- Surveying for radiologically-impacted soil continues to be performed on a periodic basis for infrastructure related activities within the former slips area. During October, survey activities were conducted primarily at future caisson locations within the former northem slip. Evidence of elevated gamma readings was observed at several small areas located within close proximity to one another on October 9. These areas were designated as exclusion zones. No other areas of elevated gamma reading were observed during the remainder of the October surveying.
- 2. On October 29, 2003, remediation was initiated for of the areas identified on October 9. The areas were designated as exclusion zones 13D East, 13D West and Caisson C.2-3. The remedial activities were conducted on October 29 31 and on November 7. Table 1 below summarizes the quantity of radiologically-impacted material excavated in October and on November 7. The table also provides a cumulative total for the site.

Table 1 Impacted Soil Loading Summary

Date	Containers Loaded	Cumulative Project Total
October, 2003	11	251
November 7, 2003	3	254

- 3. Verification surveys of the remediated exclusion zones were performed by the USEPA contractor on November 11 and notices of successful verification signed by the USEPA on November 12, 2003.
- 4. Personal and area air monitoring was conducted during the excavation of radiologically-impacted soil in October and on November 7, 2003. No exceedances of the allowable limits for personal or area air monitoring were observed. Results for the air monitoring conducted during the week of October 27 and on November 7 are included within Attachment 1.
- Pursuant to a verbal approval by the USEPA, samples not associated with verification surveys were disposed of with the impacted soil remediated during October. The remaining verification samples await pickup by the USEPA.

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

US Environmental Protection Agency - Region 5 STS Project No. 1-32193-XC November 15, 2003 Page 2

#### PLANNED ACTIVITIES FOR NOVEMBER 2003

- 1. There are currently no immediate plans for conducting infrastructure activities that will expose subsurface soil within the former slip areas. Surveying for radiologically-impacted soil will resume when project activities have the potential to exposed subsurface soil within the former slips area. The USEPA will be notified upon discovery of any radiologically-impacted materials. Excavation activities will take place as necessary to remediate radiologically-impacted soil. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 2. Monthly reports will to be submitted to the USEPA until approval of the closure report.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Kornder, Ph.D. Senior Project Geochemist

**Attachments** 

cc: Kara Hughes, Lakeshore East, LLC

Sean Bezark, Greenberg Traurig

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC

**ATTACHMENT 1** 

**Air Monitoring** 

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

**North Monitor** Report #33 10/27/03 - 10/31/03 (High Volume) Time Sampled |Effluent Concentration | Concentration x Date (minutes) in uCi/ml Sample Min / Day Comments 10/27/03 0 0.00E+00 0.00E+00 No Work 10/28/03 0 0.00E+00 0.00E+00 No Work 10/29/03 307 0.00E+00 0.00E+00 10/30/03 349 D\_00E+00 0.005+00 10/31/03 382 0.00<del>E+</del>00 0.00E+00 1038 0.00E+00 0.00E+00

Com = ET.C

Time Weighted Weekly Effluent Concentration (North) = 0.00E+00 uClim!

Percentage of Release Limit of =

0.00%

En A.S NUREG 1400

South Monitor

<del></del>				
	Time Sampled	Effluent Concentration	Concentration x	
		in uCl/ml	Sample Min / Day	Conunents
10/27/03	Ō	0.00E+00	0.00E+00	
10/28/03	0	0.00E+00	0.00E+00	No Work
10/29/03		*****	5.20E-18	
10/30/03	348	1.78€-15	<del>0.12</del> E-13	
10/31/03	383	0.00E+00	0.00E+00	
	1035	3.47€-15	1.13E-12	

 $C_{max} = \sum_{i} T_{mi} C_{i}$ **E T**\_

Time Weighted Weekly

Effluent Concentration (South) = 1.09E-15 uCi/mi

Eq A.O NUREO 1400

Percentage of Release Limit of = 27.35%

4E-15uCilmi

4E-15uCVml

Fact Mankter

COST WAY				
		Effluent Concentration in uCl/ml	Concentration x Sample Min / Day	Comments
10/27/03	·	0.00€+00	0.00E+00	No Work
10/28/03	) 0	0. <b>00E+0</b> 0	0.00E+00	No Work
10/29/03	302	0.00E+00	0.00E+00	
10/30/03	347	0.00€400	0.00E+00	•
10/91/03	384	2.12E-15	8.14E-13	
	1033	2.12E-15	8.14E-13	

Come \* ET. C ΣT. Thre Weighted Weekly

Effluent Concentration (East) = 7.88E-16 uCt/mi

Percentage of Release Limit of = Eq A.O NUREG 1400

19.70%

4E-15uCiAni

West Monitor

	Time Sumpled	Effluent Concentration	Concentration x	
Date	(minutes)	in u¢i/mi	Sample Min / Day	Comments
10/27/03	Ō	0.00€+00	0.00 <del>E</del> +00	No Wark
10/28/03	0	0.00€+00	0.00E+00	No Work
10/29/03	310	0.00E+00	0.00€+00	
10/30/03	354	7.20E-18	2.55E-13	
10/31/03	373		· '	
	1037	1.52E-15	أسبب بينوان	

 $C_{mq} = \sum T_{a,b} C_{i}$  $\sum T_{a}$ Eq. A.9 NUREG 1400

Time Weighted Wenkly	
Effluent Concentration (West) =	5.34E-16 uCi/mi
Percentage of Release Limit of =	13,34%

# Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis) Lakeshere East Project - 221 North Columbus Drive, Chicago, IL

Report N	o. 33
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October 27, 2003 - October 31, 2003

	,			total	ciubic	cample	day after analysis					for	ır day a	nalysia	)	% of Lbruk	
Semple	clefa.	etart	etop	tirne	No min	VORATION	date	gross	blig	net	Concentration	date	Bross	bleg	1966	Concentration	4006-16
ID.	sampled	time	time	belomes	(CFM)	Brudyzed	analyzed	00CINto	counts	<b>SPITI</b>	in ucilmi	enelyzed	counta	counts	фп	in uCMnd	uCl/mi
N2063	10/29/03	8:56am	2:03pm	307	47	1.43E+07	10/30/03	88	12	2.48687	6.27E-14	11/3/03	12	12	Q	0.00 <b>E+0</b> 0	0.00%
S2083	10/29/03	9:01em	2:05pm	304	47	1.42E+07	10/90/03	52	12	1.33383	3.42E-14	11/3/03	14	12	0.967	1.71E-15	42.79%
E2083	10/29/03	8:58 <b>am</b>	2:00pm	302	48	1.38E+07	10/30/03	47	12	1.16697	3.08E-14	11/3/03	12	12	0	0.00E+00	0.00%
W2083	10/28/03	Ex50em	2:00pm	310	49	1.51E+07	10/30/03	67	12	1.63333	4.43E-14	11/3/03	9	12	0	0.00E+00	0.00%
N2084	10/30/03	B:25em	2:14pm	349	44	1.52E+07	10/31/03	52	13	1.3	3.11E-14	11/4/03	11	11	0	0.00E+00	0.00%
82064	10/30/03	6:22em	2:10pm	346	40	1,38E+07	10/31/03	142	13	4.3	1.13E-13	11/4/03	13	11	0.007	1.76E-15	43.92%
<b>52084</b>	10/30/03	8:28em	2:16pm	347	41	1.41E+87	10/31/03	89	13	1.96867	4.81E-14	11/4/03	10	11	0	0.00E+00	0.00%
W2084	10/38/03	8:23am	2:17pm	354	48	1.68E+07	10/31/03	67	13	1.8	3.89E-14	11/4/03	12	11	0.033	7.20E-18	17.99%
N2065	10/31/03	8:21am	2:43pm	362	45	1.70E+07	11/3/03	18	12	0.2	4.27E-16	11/7/03	10	11	0	Q.00E+00	0.009
82085	10/31/03	8:23am	2:48pm	383	42	1.59E+07	11/3/03	22	12	0.33333	7.60E-15	11/7/03	. 11	. 11	0	0.00E+00	0.00%
E2065	10/31/03	8:23am	2:47pm	384	45	1.71E+07	11/3/03	23	12	0.38867	7.78E-15	11/7/03	14	11	8,1	2.12E-15	53.07%
W2085	10/31/03	8:28am	2:41PM	373	41	1,52E+07	11/3/03	17	12	0.16867	4.00E-15	11/7/03	12	11	0.033	8.00E-15	19.099
Wednesday 10/28/03 through Friday 10/31/03 were the only days during this week when therium contaminated material was excavated and loaded. Air Monitoring not required on other work days.											10/31/08	not and	uyzen u	htil 11/7	lected on 1/63 because & 11/6/63		

# Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)

Report No. 33 October 27 - October 31, 2003

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\* Ali PAM's with elevated counts on day after analysis are recounted after 4 days (see attached)

Date Collected	Name	Sample ID	PAM#	Flow Rate (ipm)	Total Time Sampled	Total Sample Volume (ml)	Analysia Date		Bkg Counts (30 min)	Net CPM	Sample Concentration (uCi/mi)
10/29/03	Odelt Morgan	PAM2261	002-574	2.5	384	960000	10/30/03	13	12	0.03	8.84E-15
10/29/03	Glean Huber	PAM2262	008-234	2.5	384	960000	10/30/03	16	12	0.20	5.30E-14
10/30/03	Odell Morgan	PAM2263	002-574	2.5	365	912500	10/31/03	17	13	D.13	3,72E-14
10/30/03	Glenn Huber	PAM2264	006-234	2.5	365	912500	10/31/03	12	13	0.00	0.00E+08
10/31/03	Odell Morgan	PAM2265	002-574	2,5	395	967500	11/3/03	11	12	0.00	0.00E+00
10/31/03	Glean Huber	PAM2268	006-234	2.5	395	987500	11/3/03	12	12	0.00	0.00E+00

Wed 10/29 - Fri 10/31 were the only day s during this week when thorium contaminated meterial was excavated and loaded. Air Monitoring not required on other work days.

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information.

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Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Report No. 33 October 27 - October 31, 2003

Date				Flow Rete	Total Time	Total Sample	Analysis	Gross Counts	Bkg Counts	Net	Sample Concentration	% of DAC
Collected	Name	Sample ID	PAM#	(lpm)		Volume (mi)		(30 min)	(30 min)	<b>CPM</b>	(uCl/ml)	_
10/29/03	Odell Morgan	PAM2261	006-234	2.5	384	960000	11/3/03	12	12	0.00	0.00E+00	0,00%
10/29/03	Glenn Huber	PAM2262	002-574	2.5	384	960000	11/3/03	10	12	0.00	9.00E+09	0.00%
10/30/03	Odeli Morgan	PAM2263	002-574	2.5	365	912500	11/4/03	10	11	0.00	9.00E+00	0.00%
								•				

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCi/mt

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/ml

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL.

North Mor		Report #34 11/3/03 -		(High Volume)
	1	Effluent Concentration in uCi/mi	Concentration x Semple Min / Day	Comments
11/3/03	Ó	0.00E+00	0.00E+00	No Work
11/4/03	٥	0.00E+00	0.00E+00	No Work
11/5/03	0	0.00E+00	0.00E+00	No Work
11/6/03	0	0.005+00	0.00E+00	Ne Work
11/7/03	348	1. <b>50E-</b> 15	5.19E-13	
	346	1.50=-15	5.19E-13	

 $C_{\text{ext}} = \sum T_{ext} C_{ext}$ 

ΣΤ.

Time Weighted Weekly Effluent Concentration (North) =

1.50E-15 µCi/mi

Eq A.9 NUREG 1400

Percentage of Release Limit of =

37.50%

4E-15uCl/tril

South Monitor

3000 Nio	IN COT			
	Time Sampled	Effluent Concentration	Concentration x	
Date		in uci/mi	Sample Min / Day	Comments
11/3/03	0	0.00E+00	0.00E+00	No Work
11/4/03	0	0,00E+00	0,005+00	No Wark
11/5/03	O.	<b>\$0+300.</b> ₽	0.00E+00	No Work
11/6/03	Ū·	Q.00E+0D	0.90E+00	No Work
11/7/03	338	0.00€+00	0.00E+00	
	338	0,00€+00	0.00E+00	

 $C_{\text{part}} = \sum_{i} T_{\text{ext}} C_i$ 

Effluent Concentration (South) = 0.00E+00 uCi/ml

Eq.A.9 MURES 1400

0.00% Parcentage of Release Limit of =

4E-18uCVml

Fest Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uçumi	Sample Min / Day	Comments
11/3/03	D	0,00€+00	0.00E+00	No Work
11/4/03	0	0.00€+00	0.00€+00	No Work
11/5/03	O.	0.005+00	0.00E+00	No Work
11/6/03	0	0.00E+00	0.005+00	No Work
11/7/03	335	0.00E+00	0.00€+00	
	336	0.00E+00	0.00E+00	

Case # ET-LC

Time Weighted Weekly

Time Weighted Weckly

Effluent Concentration (East) =

0.09E+00 uCirmi

Eg A.9 NUREG 1400

Percentage of Release Limit of =

0,00%

4E-15uCi/m/

West Monitor

		Effluent Concentration		
Date	(minutes)	Hu richun	Sample Min / Day	Comments
11/3/03	0	0. <b>00E+0</b> 0	0.00E+00	No Work
11/4/03	Q	0.005+00	Q,QQE+0D	No Work
11/5/03	0	0,00E+00	0.00€+00	No Work
11/6/03	0	0.00E+00	0.00E+00	Ng Work
11/7/03	339	0.00E+00	0.00E+00	
	339	0.00E+00	0.00€+00	

$C_{\text{avg}} = \Sigma \underline{T}_{-1} \underline{C}_{1}$	Time Weighted Weekly	
Σ Τ.	Effluent Concentration (West) =	0.00E+00 nCAN
Eq A.9 NUREG 1400	Percentage of Release Limit of =	0.00%

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Report No. 34

November 3, 2003 - November 7, 2003

topoi	1110.0			1101011	HOUR O	Foto . I	10121111	V) 1 j A	.000								
			1	total	cubic	Mample		day	efter s	nalyala			for	ur day q	nelysia		% of Limit
i alqımati	dals	elert	slop	time	iti min	<b>VOLUME</b>	dala	gross	blig	net	Concentration	, elaks	<b>Gross</b>	þkg	nel	Concenination	4.00E-15
ַ ַ	psiqma	time	lima	sampled	(CFM)	enalyzed	entifyzad	counts	counts	<b>op</b> m	in uctimi	mehand	counts	counte	ópm	in uGlimi	uClimi
N2088	11/7/03	B:12am	1:5 <b>8</b> pm	346	47	1.81E+07	11/10/03	16	13	0.1	2.285-16	11/14/03	15	13	0.067	1.50E-15	37.609
82066	11/7/03	B:14am	1:52pm	338	47	1.57E+07	11/10/03	13	13	0	0.00E+00	11/11/03	13	13	Ø	0.00E+00	0.009
E20 <b>8</b> 6	11/7/03	8:17em	1:53pm	336	45	1.50E+07	11/10/03	14	13	0.03333	8.09E-16	11/11/03	12	13	0	D.BBE+00	0.009
W2068	14/7/03	B:11am	1:50pm	339	44	1.48E+07	11/10/03	10	13	· G	0.00E+00	11/11/03	12	13	0	D.00E+00	0.009
w <del>aa</del> k wi axaavat	nen therlur	n contemi ded. Air i	es the only insted mate Monitoring	eriol was													

# Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)

Report No. 34 November 3 - November 7, 2003

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\* All PAM's with elevated counts on day after analysis are recounted after 4 days (see attached)

				Flow	Total	Total		Gross	Bkg		8ample
Date		Į l		Rate	Time	Bample	Analysis	Counts	Counts	Net	Concentration
Collected	Name	Sample 1D	PAM#	(tpm)	Bampled	Volume (ml)	Date	( <b>10</b> min)	(30 min)	CPM	(uClimi)
11/7/03	Glenn Huber	PAM2267	005-234	2.5	380	950000	11/10/03	11	13	0.00	0.00E+00
11/7/03	Odell Morgan	PAM2268	002-574	2,5	380	950000	11/10/03	13	13	D.00	0.00E+00

Friday November 7, 2009 was the only day during this week when thorum contaminated material was excavated and loaded. Air Monitoring not required on other work days.

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis.

See attached 4 Day Analysis Form for Occupational Dose Limit Information.

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Personal AiriMonitoring Summary Sheet (PAM's -4 Day Analysis)

Report No. 34 November 3 - November 7, 2003

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL.

***Note: All samples of high page were unaryzed after 4 days to show for incliding daughter decay													
				Flow	Total	Total	j	Gross	Bkp		Bemple	% of	
Date	·	1		Rate	Time	Sample	Analysia <sup>3</sup>	Counts	Counts	Net	Concentration	DAC	
Collected	` Name	Sample (D	PAM#	(mat)	Sampled	Valume (m)	Date	(30 mim)	(20 min)	CPM	(uCl/mi)		

No 4 day analysis of PAM's required for this monitoring period

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

:2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-it3uCi/ml

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/ml



750 Corporate Woods Parkway Vernon Hills, IL 60061 Phone: (847) 279-2500 FAX: (847) 279-2510



# **FACSIMILE TRANSMISSION**

Date:	September 16, 2003		
To:	Verneta Simon/Fred Micke	USEPA	Fax #: 912-353-9178
<b>.</b>	Kara Hughes	Lakeshore East, LLC	Fax #: 312-642-2773
	Sean Bezark	Altheimer & Gray	Fax #: 312-715-4800
	Barbara Magel	Karaganis, White & Magel Ltd.	Fax #: 312-836-9083
	Mark Krippel	Kerr-McGee Chemical LLC	Fax #: 630-231-3990
Pages	being transmitted, incl. Cov	er: 10	
CC:		Fax No.:	
From:	Steve Komder	Phone: 847-279-2500	
Re:	Lakeshore East, 221 N. Colu	ımbus Dr., Chicago, IL	
□ Urger	nt	Please Comment/Reply As Requested	Original to Follow
Mess	ige:		

IMPORTANT: This facsimile is intended only for the of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this facsimile is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return this facsimile to us at the above address via the United States Postal Service. Thank you.

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL (847) 279-2500 IMMEDIATELY

SEP-16-2003 02:05PM FAX:847 2792535

ID:USEPA REGION 5

PAGE: 001 R=96%



STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061-9153

voice 847-279-2500
fax 847-279-2510
web www.stsconsultanis.com

September 16, 2003

Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for August 2003, 221 N. Columbus Drive, Chicago, Illinois - STS Project

No. 1-32193-XC

Dear Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken in August 2003 and activities planned for September 2003.

#### **PROGRESS DURING AUGUST 2003**

- The periodic surveying of infrastructure installation activities (i.e., caissons, utility installations, etc.) for radiologically-impacted soil continues. On August 15, 2003, three areas with slightly elevated gamma reading were identified in the eastern portion of the former northern slip (see attached drawing). These areas were setup as exclusion zones 12C#1, 12C#2 and 12C#3. Equipment was mobilized to initiate the remedial activities on August 20, 2003. The remedial work was completed on August 25, 2003.
- Table 1 below summarizes the quantity of radiologically-impacted material excavated in August and
  provides a cumulative total for the site. Verification surveys for the remediated exclusion zones were
  performed by the USEPA contractor on August 27 and notices of successful verification signed by the
  USEPA on August 29, 2003.

Table 1
Impacted Soil Loading Summary

Date	Containers Loaded - Weekly Totals	Cumulative Project Total		
August 20 - 25, 2003	10	240		

3. Personal and area air monitoring was conducted during the excavation of radiologically-impacted soil in August. No exceedances of the allowable limits for personal or area air monitoring were observed. Results for the air monitoring conducted during the week of August 18 are included within Attachment 1. It should be noted that the results for the August 25 monitoring were analyzed and indicated no exceedances, but were not tabulated at the time of this submission. These results will be submitted with the next monthly report.

#### **PLANNED ACTIVITIES FOR AUGUST 2003**

 Gamma surveys will be conducted if intrastructure installation activities within the former slip areas are performed. The USEPA will be notified upon discovery of radiologically-impacted materials. Excavation activities will take place as necessary to remediate radiologically-impacted soil. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.

100-111-7 (3/03)

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

US Environmental Protection Agency - Region 5 STS Project No. 1-32193-XC September 16, 2003 Page 2

- Monthly reports will continue to be submitted to the USEPA until submittal of the closure report.
- 3. The submittal of a revised draft closure report to the USEPA, which incorporates the comments of the client, is anticipated for September 2003.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

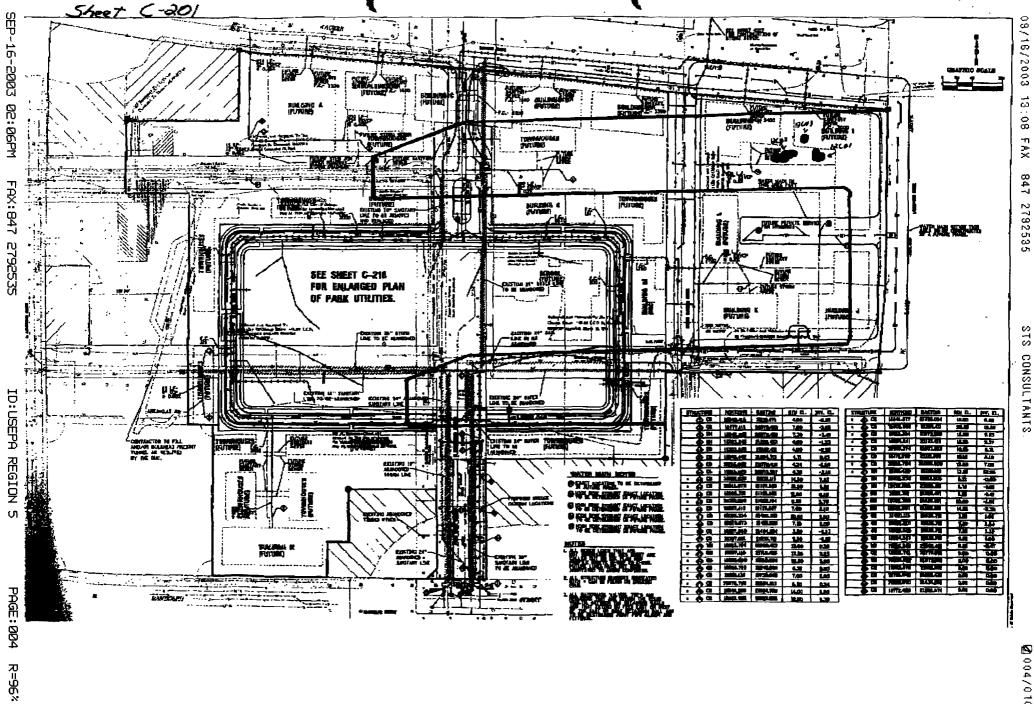
Steven C. Kornder, Ph.D. Senior Project Geochemist

Attachments

Kara Hughes, Lakeshore East, LLC Sean Bezark, Altheimer & Gray CC:

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC

K:\PRQJECTS\132193xc\C132193XC079\_Aug\_Monthly.doc



ATTACHMENT 1

Air Monitoring

SEP-16-2003 02:06PM FAX:847 2792535

ID:USEPA REGION 5 PAGE:005 R=96%

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, il.

North Mo	<u>nitor</u>	Report #31 6/18/03 - 1	8/22/03	(High Volume)
Date	(minutes)	Effluent Concentration in uCI/mi	Concentration x Sample Min / Day	Comments
8/18/03	0	0.00E+00	0.00€+00	
8/19/03	. 0	0,00E+00	0.805+00	
8/20/03	355	0.00E+00	0.00E+00	
8/21/03	428	6.30E-16	2.70E-13	
8/22/03	304	Q,QQE+00		
	1087	6.30E-16	2.70E-13	

 $C_{min} = \sum_{i} \sum_{j=1}^{n} C_{ij}$ 

Time Weighted Weekly

ΣT.

Effluent Concentration (North) = 2.48E-16 uClimi

Eq A.9 NUREG 1400

Percentage of Release Limit of = 6.20%

4E-15uCVml

South Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)		Sample Min / Day	Comments
8/18/03	0	0.00E+00	0.00E+00	
B/19/03	0	0.00E+00	0.00E+00	,
8/20/03	369	1.40E-15	5.17E-13	
8/21/03	444	0.005+00	0.00E+00	
9/22/03	295	9.56E-16	2.82 <b>E</b> -13	
	1108	2.36E-15	7,99E-13	

Com = E Tai C

Time Weighted Weekly

ΣΤ.

Effluent Concentration (South) = 7,21E-16 uCVml

Ea A.D MUREG 1400

Percentage of Release Limit of = 18.02%

4E-15uCMM

East Monitor

2001 MAN				
	Time Sampled	Effluent Concentration	Concentration x	
Date		in u <b>cv</b> mi	Sample Min / Day	Comments
8/18/03	0	0.00E+00	0.005+00	
8/19/03	0	0.00E+00	0.00€+00	•
8/20/03	342	0.0 <b>0E+0</b> 0	0.00E+00	ľ
8/21/03	429	0.00E+00	0.00E+00	
8/22/03	305	0.00€+00	0.00E+00	
	1078	0.00€+00	0.00E+00	

 $C_{\text{eng}} = \sum_{i=1}^{n} C_{i}$ 

Time Weighted Weekly

ΣΤ

Effluent Concentration (East) = 0.00E+00 uCl/ml

En A.S NUREG 1400

Percentage of Release Limit of = 0.00%

4E-15uCVml

West Monitor

		Effluent Concentration		
Date		[in uCi/m]	Sample Min / Day	Comments
8/18/03	0	0.00E+00	0.00E+00	
6/19/03	0	0.00億+00	0.00E+00	
8/20/03	355	0.00E+00	0.00€+00	
8/21/03	445		l ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	
6/22/03				
	1097	1.81E-15	5.36E-13	

Eq A.9 NUREG 1400

Time Weighted Weekly

Effluent Concentration (West) =

4.90E-16 uCi/rel

Percentage of Release Limit of =

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# Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis) Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Report No. 31 August 18, 2003 - August 22, 2003

				1000	aubic	antable .		dey	after e	relysis			tot	ur day a	(Jalysia		% of Limit
Banupie	dele	stari	etop	shme	fel min	volume	dela	gross	plo	net	Concentration	date	gross	blig	rest	Concentration	4.00E-15
a a	manipled .	time	lime	sampled	(CFM)	armiyand_	anelyzed		counts	opm	in uÇilmi	armyzed	counts	counts.	apm	in uclimit	uCMm3
12069	8/20/03	8:32am	2:27pm	356	42	1.48E+07	8/21/03	82	13	2.3	5.61E-14	8/25/03	12	12	Q	8.00E+00	0.009
82059	8/20/03	8:26em	2:35pm	369	47	1.72E+07	8/21/03	70	13	1.9	3.99E-14	8/25/03	14	12	0.067	1.40E-15	34.969
E2068	8/20/09	8:40am	2:22pm	342	48	1.63E+07	8/21/03	73	13	2	4.43E-14	8/25/03	11	12	0	0.00E+00	0.009
W2050	8/20/03	8:3 <b>5e</b> m	2:30pm	355	50	1.76E+07	8/21/03	51	. 13	1.26887	2.60E-14	8/26/03	12	12	0	0.00E+00	0.009
N2080	8/21/03	8:22em	3:30pm	428	45	1.91E+07	8/22/03	150	12	4.6	8.89E-14	8/26/03	14	13	0.033	6.38E-16	15.749
82060	8/21/03	8:15 <b>e</b> m	3: <b>30pm</b>	444	40	1.78E+07	8/22/03	112	12	3.33333	6.83E-14	8/25/03	. 10	13	Ō	G.00E+00	0.009
<b>E206</b> 0	8/21/03	8:21am	3:30pm	429	41	1.74E+07	8/22/03	116	12	3.46687	7.17E-14	8/26/03	13	13	q	0.00E+ <b>0</b> 0	0.009
W2060	8/21/03	8:12em	3:37pm	445	42	1.65E+07	<b>6/22/03</b>	143	12	4.36687	8.50E-14	8/25/03	11	13	0	0.00E+00	0.009
N2081	8/22/03	8:00am	1:10pm	304	42	1.27E+07		18	12	0.13333	3.80E-15	8/27/03	10	11	0	0.00E+00	0.00
82061	8/22/03	8:11am	1:06pm	295		1.28E+07	2	14	12	0.05567	1.91E-15	8/27/03	12	! 11	0.033	9.56E-16	23.90
E2061	9/22/03	8:08em	1:13pm	305	42	1.27E+07	8/25/03	18	12	0.2	5.68E-16	8/27/03	10	) 11	0	0.00E+00	0.00
W2061	8/22/09	8:12em	1:9 <b>9</b> pm	297	. <b>45</b>	1.32E+07	8/25/03	13	12	0.03333	9.07E-16	8/27/03	13	11	0.967	1.81E-15	45,369
Wadnes	day 8/20/0	33 through	Friday 8/2	22/03 Wen	the												
only day	s during ti	nia waak w	then thoriu	in contain	dasted		1				,						
			ioeded A	ir Montor	Ing		1					•					
urr sædn	ired on oti	TOL MICHE C	als.				ŧ .					ŧ					l .
į							1					1					1

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STS CONSULTANTS

Report No. 31 August 18 - August 22, 2003

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\* All PAM's with elevated counts on day after analysis are recounted after 4 days (see attached)

Date Collected	Name	Sample ID	PAM#	Flow Rate (lpm)	Total Time Sampled	Total Sample Volume (ml)	Analysis Date	Gross Counts (30 min)	Blkg Counts (30 min)	Net CPM	Semple Concentration (uCl/ml)
8/20/03	Glenn Huber	PAM2253	002-574	2,5	367	917500	8/21/03	- 11	13	0.00	0.00E+00
8/20/03	Odeli Morgan	PAM2254	006-234	" <b>2.5</b>	367	917500	8/21/03	13	13	0.00	0.00€+00
8/21/03	Gienn Huber	PAM2255	002-574	2.5	412	1030000	8/22/03	18	12	8.20	4.90E-14
8/21/03	Odell Morgan	PAM2258	008-234	2.5	412	1030090	8/22/03	14	12	0.07	1.83E-14
8/22/03	Gienn Huber	PAM2257	002-574	2.5	242	605000	8/25/03	12	12	00.0	0.00E+00
8/22/03	Odell Morgan	PAM2258	008-234	2,5	242	605000	8/25/03	12	12	0.00	0.00E+00

Wednesday 8/20/03 through Friday 8/22/03 were the only days during this week when thorium contaminated material was excavated and loaded. Air Monitoring not required on other work days

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information.

13:09 FAX

847 2792535

CONSULTANTS

Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)

Report No. 31 August 18 - A

Report No. 31 August 18 - August 22, 2003

Date Collected	Nema	Sample II)		Flow Rate (Ipm)		Total Sample Volume (ml)		(30 min)	Bkg Counts (30 min)	Net CPM		% of DAC
	Glenn Huber	PAM2256	002-574	2.5	-					0.00		0,00%
8/21/03	Odeli Morgan	PAM2258	<del>000-234</del>	2.5	412	1930000	8/26/03	10	13	0.00	0.0 <b>0E+8</b> 0	0,0054
												i

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCl/mi

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/mi



# **STS Consultants, Ltd.**

750 Corporate Woods Parkway Vernon Hills, IL 60061 Phone: (847) 279-2500 FAX: (847) 279-2510

## **FACSIMILE TRANSMISSION**

Date:	September 16, 2	.003				
To:	Verneta Simon/F	red Micke	USEPA		Fax #:	312-353-9176
	Kara Hughes		Lakesh	ore East, LLC	Fax #:	312-642-2773
- <del></del>	Sean Bezark	·····	Altheim	er & Gray	Fax#:	312-715-4800
	Barbara Magel		Karaga	nis, White & Magei I	Ltd. Fax#:	312-836-9083
	Mark Krippel		Kerr-Mo	:Gee Chemical LLC	Fax#:	630-231-3990
Pages	being transmitte	d, incl. Cover:	3			
CC:			Fax No.	l		
From:	Steve Komder		Phone:	847-279-2500		
Rei	Lakeshore East,	221 N. Columb	ous Dr., Chicago, IL			
Urger וי	nt 🔲 For Signature	For Review	Please Comment/Rep	oly As Requested	Original to	Follow
					<del></del> -	<del></del>
Messi	ige:					

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STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 80081-3159 voice 947-279-2500 lax 847-279-2510 web www.stsconsultants.com

September 16, 2003

Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE: Monthly Progress Report for July 2003, 221 N. Columbus Drive, Chicago, Illinois - STS Project

No. 1-32193-XC

Dear Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken in July 2003 and activities planned or expected for the remainder of August 2003.

### **PROGRESS DURING JULY 2003**

- 1. Surveying of infrastructure installation activities (wick drains, caissons, utility installations, etc.) for radiologically-impacted soil continues. On July 28 spoil material that exhibited a slightly elevated garma reading (27,000 cpm versus background of 20,352 cpm) was identified during the installation of a wick drain within the former southern slip (see attached drawing). The soil, which was estimated to be less than 1 cubic ft., was bagged for disposal. Based on the absence of elevated reading at the surface, the planned placement of 17 ft. of additional fill soll over the area, the short distance to the watertable, the isolated nature of the impacted material (based on the survey of surrounding spoil piles) and difficulties in conducting excavation activities within the newly stalled wick drain field no further investigation was conducted at the wick drain location (refer to STS memo of September 12, 2003).
- Personal and area air monitoring was conducted during the excavation of radiologically-impacted soil
  the in late June and first two days of July. Results for the air monitoring were included within the
  monthly report for June (STS, July 16, 2003). No exceedances of the allowable limits for personal or
  area air monitoring have been observed.
- 3. Table 1 below summarizes the quantity of radiologically-impacted material excavated in late June and early July and provides a cumulative total for the site. Verification surveys for the remediated exclusion zones were obtained from the USEPA on June 20 and July 8, 2003.

Table 1 Impacted Soil Loading Summary

Date	Containers Loaded - Weekly Totals	Cumulative Project Total	
June 16 - July 2, 2003	8	230	

11.61-12 (3**.403**)

SEP-16-2003 01:34PM FAX:847 2792535 ID:USEPA REGION 5 PAGE:002 R=95%

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

US Environmental Protection Agency - Region 5 STS Project No. 1-32193-XC September 16, 2003 Page 2

### PLANNED ACTIVITIES FOR AUGUST 2003

- Gamma surveys will be conducted during infrastructure installation activities within the former slip areas. Specifically, the installation of caissons in the former southern slip. The USEPA will be notified upon discovery of radiologically-impacted materials. Excavation activities will take place as necessary to remediate radiologically-impacted soil and the USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 2. Monthly reports will continue to be submitted to the USEPA until submittal of the closure report.
- The submittal of a revised draft closure report to the USEPA, which incorporates the comments of the client, is anticipated for early September 2003.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Kornder, Ph.D. Senior Project Geochemist

**Attachments** 

cc: Kara Hughes, Lakeshore East, LLC

Sean Bezark, Altheimer & Gray

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC

K:\PROJECT\$\132193XC\C132193XC076\_July\_Monthly.doc

# STS Consultants, Ltd.

750 Corporate Woods Parkway Vernori Hills, IL. 60061 Phone: (847) 279-2500 FAX: (847) 279-2510



### **FACSIMILE TRANSMISSION**

vater	July 16, 2003					
To:	Verneta Simon/F	red Micke	USEPA		Fax #: 31	2-353-9176
	Kara Hughes		Lakeshor	e East, LLC	Fax#: 31	<b>2-6</b> 42-2773
	Sean Bezark		Altheirne	& Gray	Fax#: 31	2-715-4800
	Barbara Magel	<u></u>	Karagani	s, White & Magel L	.td. Fax #: 31	<b>2-836-908</b> 3
	Mark Krippel		Kerr-McG	iee Chemical LLC	Fax#: 63	0-231-3990
Pages	being transmitted	t, incl. Cover:	22			
CCI			Fax No.:			
From:	Steve Kornder		Phone:	847-279-2500		
Re;	Lakeshore East,	221 N. Columb	ous Dr., Chicago, IL			
Urgan	t	☐ For Review	Please Comment/Reply	☐ As Requested	Criginal to Foli	OW .
Mores						

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STS Consultants, Ltd. 750 Corporate Woods Partural Vernon Hills. Binois 60061-3153 voice 847-279-2500 fax 847-279-2510 was avvicateorealisms.com

July 16, 2003

Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

IE: Monthly Progress Report for June 2003, 221 N. Columbus Drive, Chicago, Illinois - STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies the actions taken during June and early July 2003 and activities planned or expected for the remainder of July 2003.

### PROGRESS DURING JUNE AND EARLY JULY 2003

- Surveying of infrastructure installation activities for radiologically-impacted soil recommenced at the site on June 16, 2003. On June 17 an area that exhibited elevated gamma readings was identified during the installation of a sewer line in the former southern slip. The area was designated as exclusion zone C-218(73) (refer to drawing in Attachment A). Remediation of the area was preformed on June 17 and 18, 2003.
- Two areas with elevated gamma readings were discovered during the surveying of potential utility installation areas in the former northern alio the week of June 23. Two exclusion zones were designated C-201(31)#1 and C-201(31)#2 (refer to drawing in Attachment A). The areas were remediated between June 26 and July 2, 2003.
- Personal and area air monitoring was conducted during the excavation of radiologically-impacted soil
  in June and early July. No exceedances of the allowable limits for personal or area air monitoring
  have been observed. Results for the air monitoring are included within Attachment B.
- 4. Table 1 below summarizes the quantity of radiologically-impacted material excavated during June and early July and provides a cumulative total for the site.

Table 1 Impacted Soil Loading Summary

Date	Containers Loaded - Weekly Totals	Cumulative Project Total		
May 31, 2003		222		
June 16 - July 2, 2003	8	230		

 Verification surveys for the remediated exclusion zones were completed by the USEPA on June 20 and July 8, 2003. The date the notice of successful verification was signed by the USEPA is provided in Table 2.

100-US-7 (2003

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC July 16, 2003 Page 2

Table 2
Notice of Successful Verification

1141144 41 6 60004418	1 1 61101AHCIĞI
Exclusion Zone ID	USEPA Signature Date
C-218(73)	6/20/03
C-201(31)#1	7/10/03
C-201(31)#2	7/10/03

### **PLANNED ACTIVITIES FOR JULY 2003**

- 1. Gamma surveys will be conducted during infrastructure installation activities within the former slip areas. Specifically, the installation of calssons in the former southern slip is anticipated to begin in early July and take approximately three weeks. The USEPA will be notified upon discovery of radiologically-impacted materials. Excavation activities will take place as necessary to remediate radiologically-impacted soil discovered. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 2. Monthly reports will continue to be submitted to the USEPA until submittal of the closure report.
- The submittal of a revised draft closure report to the USEPA, which incorporates the comments of the client, is anticipated for late July 2003.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Kornder, Ph.D. Senior Project Geochemist

**Attachments** 

CC:

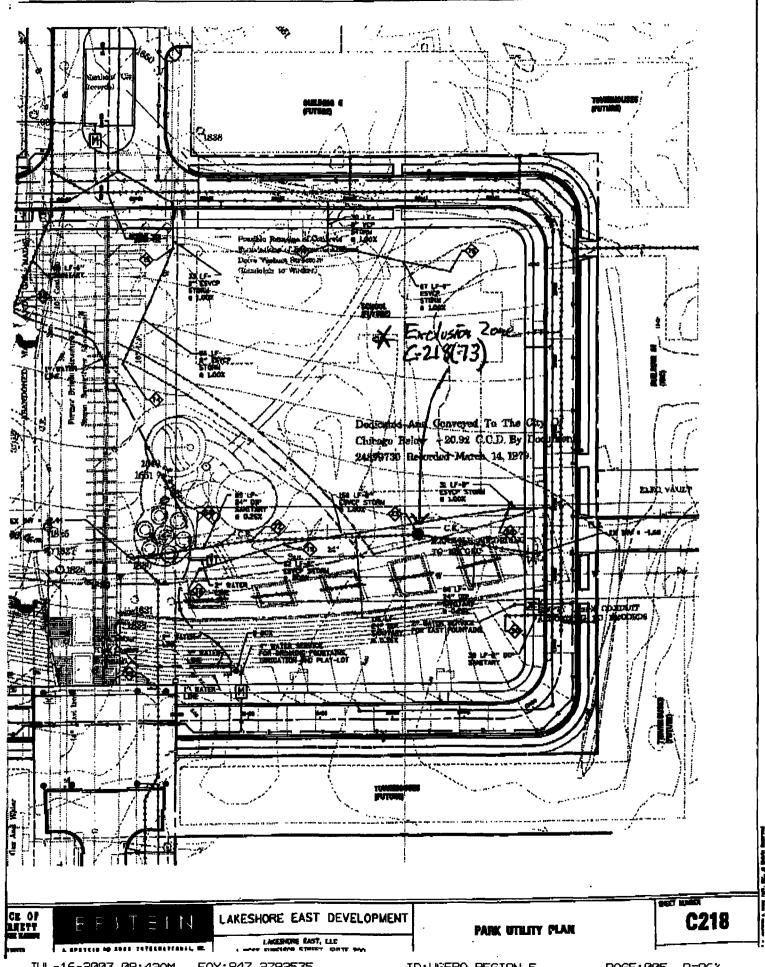
Kara Hughes, Lakeshore East, LLC Sean Bezark, Altheimer & Gray Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC

K:\PROJECT\$\132193XC\C132193XC070\_June\_Monthly.doc

ATTACHMENT A

**Exclusion Zone Location Drawings** 

JUL-16-2003 08:429M FAX:847 2792535 ID:USEPA REGION 5 PAGE:004 R=96%

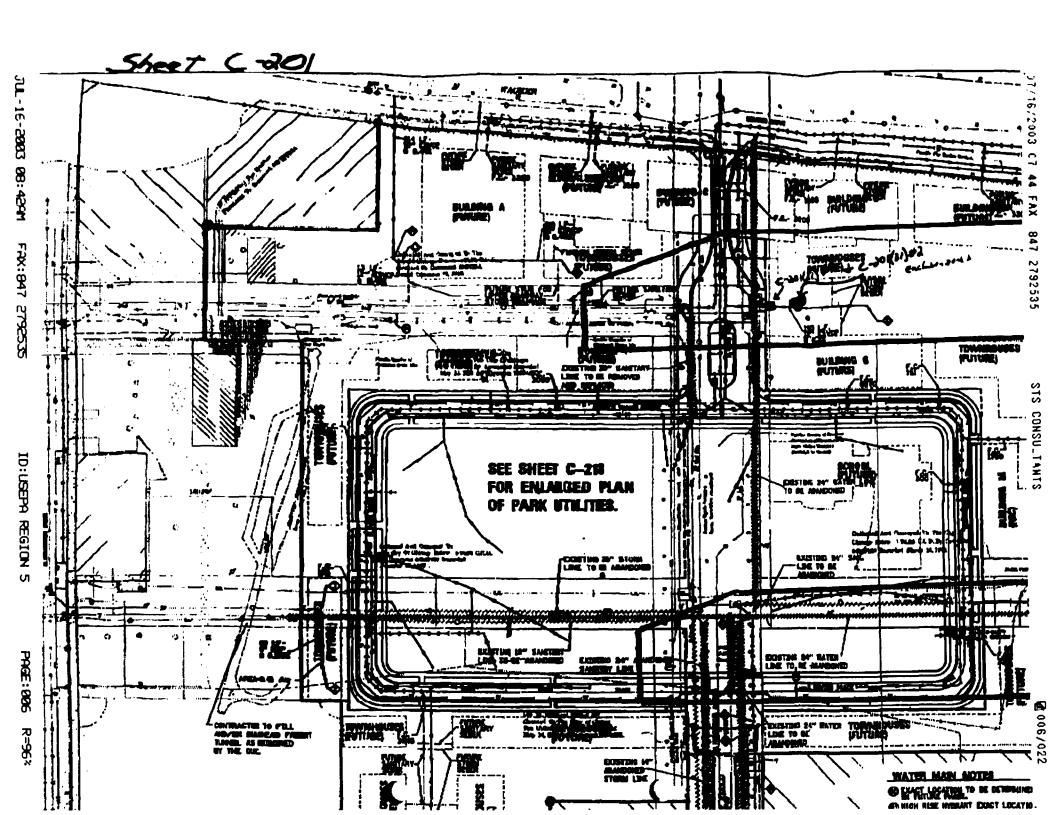


JUL-16-2003 08:42AM

FAX:847 2792535

ID:USEPA REGION 5

PAGE:005 R=96%



ATTACHMENT B

**April Air Monitoring Results** 

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report Labeltone East Project - 221 North Columbus Drive, Chicago, IL.

North Mo		Week \$28 6/16/83 - 6/	20/03	(High Volume)
	Time Sampled	Efficient Concentration	Concentration x	
Date	(minutes)	in uCi/ml	Sample Min / Day	Comments
6/16/03	0	0.00E+00	0.00E+00	
6/17/03	l 0	0.00E+00	0.00E+00	
8/18/03	291	9.47E-16	2.76E-13	
6/19/03	285	0,00E+00	0.00E+00	
6/20/03	o	0.00E+00	0.00E+00	
	546	9.477-16		

 $C_{mp} = \sum T_{cl} C_{cl}$  $\sum T_{cl}$ Eq.A.0 NURSEG HOO Time Weighted Weekly
Efficient Concentration (North) = 4.965-16 uClini
Percentage of Release Limit of = 12.39%

4E-15uCited

South Monitor

Date		Effluent Concentration in uClima	Concentration x Sample Min / Day	Comments
6/16/03	0	0.00E+00	0.00E+00	
6/17/03		0.00E+00	0.00E+00	
6/18/03	310	8.00E+00	0.000+00	
6/19/03				
6/20/83		0.00E+00	"	
	572	0.00E+00	0.00E+00	

C<sub>mp</sub> = Σ.Τ<sub>ct</sub>.C<sub>c</sub> Σ.Τ<sub>c</sub>

En AJ NURED 1400

Time Weighted Weekly

Effluent Concentration (South) = 0.00E+00 uCSIni

Percentage of Release Limit of = 0.00%

4E-15uCMed

**Boot Monitor** 

_					
Γ		Time Sampled	Effluent Concentration	Concentration x	
ŀ	Desire		in uCival	Sample Min / Day	Comments
Γ	0/10/03	0	0.08E+00	0.00E+00	
ı	6/17/03	•	0.00E+00	0.005+00	
ı	6/18/83	300	0.00E+00	0.00E+00	
ı	6/19/83	206	0.00E+00	0.005+06	
1	0/20/03		0.00E+00		
L		566	0.00E+00	0.00E+00	

Comp = E.Taylin E.T.

See A.D MURES 1400

Time Weighted Weekly
Esthernt Concentration (East) = 0.80E+00 s/Climit
Percentage of Release Limit of = 0.00%
4E-15s/Citri

PAGE: 0008 R=96\*

### West Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)		Sample Min / Day	Comments
6/16/03	0	0.00=+00	0.00E+00	
6/17/03	0	0.005+00	0.00E+00	
6/18/03	307	0.D0 <del>E+00</del>	0.002+00	
6/19/03	263	0.00E+00	Q.00E+00	
6/20/03	G	0.00E+00	0.00€+00	
, , , , , , , , , , , ,	570	0.00E+00	0.00E+00	

$C_{\text{exp}} = \sum_{i} T_{\text{exp}} C_{i}$	Time Walghted Weekly	
ΣTa	Effluent Concentration (West) =	0.00E+00 4CMml
Eq AS NUREG 1400	Percentage of Release Limit of =	0.00%

Note: This is the first week of ensite soll excevation since April 11, 2003. Radiation monitoring of construction activities inside slip areas started on 6/16/03.

STS CONSULTANTS

# Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis) Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 28

June 16, 2003 - June 20, 2003

N2082 6 82062 6 E2052 6 W2082 6 N2083 6 82063 6 E2063 6	6/18/03 6/18/03 6/18/03 6/19/03 6/19/03	9:47am 9:47am 9:40am 8:50am 6:36am 9:14am 9:10am	1:36pm 1:50pm 1:50pm 1:50pm 1:45pm 1:39pm 1:32pm	291 310 300 307 296	45	1.27E+07 1.47E+07 1.31E+07 1.37E+07		78 58	12 12 12	2.20067 2.03333	4.07E-14	9/23/03 6/23/03	14	13 13	0.583 0	0.00 <b>E+0</b> 0	4.00E-15 uOMmi 23.57% 0.00% 0.00%
N2082 6 82082 6 E2082 6 W2082 6 N2083 6 82083 6 E2083 6	6/19/03 6/18/03 6/18/03 6/18/03 6/19/03 6/19/03	8:47em 8:40em 8:50em 6:38em 9:14em 9:10em	1:36pm 1:60pm 1:60pm 1:45pm 1:39pm	281 310 300 307 286	44 48 44 45	1.27E+07 1.47E+07 1.31E+07 1.37E+07	6/19/03 6/19/03 6/19/03	90 73 68	12 12 12	2.20067 2.03333	8.44E-14 4.07E-14	6/23/03 6/23/03	14	13 13	0.593 0	9,47 <b>E-19</b> 0.00 <b>E+0</b> 0	23.57% 0.00%
82082 6 E2082 6 W2082 6 N2083 6 82083 6	6/18/03 6/18/03 6/18/03 6/19/03 6/19/03	8:40sm 8:50sm 6:36sm 9:14sm 9:10sm	1:50pm 1:50pm 1:45pm 1:39pm	310 300 307 286	48 44 45	1.47E+07 1.31E+07 1.37E+07	6/19/03 6/19/03	78 58	12 12	2.03333	4.97E-14	6/23/03	11	13	0	0. <b>00E+0</b> 0	0.00%
E2052 6 W2052 6 N2053 6 82053 6 E2053 6	6/16/03 6/16/03 6/19/03 6/19/03 6/19/03	8:60am 6:38am 9:14am 9:10am	1:50pm 1:45pm 1:39pm	300 307 286	44 45	1.81E+07 1.87E+07	6/19/03	58	12					•			
W2052 6 N2053 6 82053 6 E2053 6	6/16/03 6/19/03 6/19/03 6/19/03	6:369:m 9:14em 9:10em	1:45pm 1:39pm	307 286	45	1.87E+07			_	1.53388	4.235-14	6/23/03	. 13	13	٥	U VUETTUV	0.00%
N2063 6 82063 6 E2063 6	6/19/03 6/19/03 6/19/03	9:14em 9:10em	1:39pm	286	_		6/19/03	70						,,,	•	0.002100	U.UU.
82053 6 E2053 6	6/19/03 6/19/03	9:10em	•		45	4 4400.00		•	12	2.23333	5.965-14	6/23/03	12	13	0	0.00E+00	0.00%
E2063 6	0/19/03		1:32pm	200		1.1 <b>65+</b> 07	6/20/03	40	11	1.26867	3.86E-14	6/24/03	11	13	0	0.00E+00	0.00%
		0.12		282	48	1.17E+07	8/20/03	50	11	1.50057	4.83E-14	0/24/03	13	18	0	0.00 <b>E+0</b> 0	0.00%
W2063 C		V. LAWIN	1:40pm	256	42	1.12E+07	8/20/08	36	- 11	0.63388	2.00E-14	6/24/03	12	18	. 0	0.00E+00	0.00%
	6/19/03	9:07em	1: <b>3</b> 0pm	263	48	1.20E+07	8/20/03	40	11	0.90067	2.91E-14	6/24/03	12	13	0	0.00 <b>E+0</b> 0	0.00%
Note: There eince April 1 construction Wadnesday only days d material wa not required	i 11, 2003 on activiti ny 6/16/0 during th	3. Rendicti les started 13 and Thu nic week w vated and	ion monito i on June " reday 5/16 hen thoriu loaded. A	ring of 16, 2003. 9/03 were I'm content	the insted												

Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)

Week 28 June 16 - June 20, 2003

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\* Ali PAM's with elevated counts on day after analysis are recounted after 4 days (see attached)

				Flow	Total	Total		Gross	Bkg		Sample
Date				Rets	Time	Sample	Analysis	Counts	Counts	Net	Concentration
Collected	Neme	Sample ID	PAM #	(lpm)	Sempled	Volume (mi)	Date	(30 min)	(30 min)	CPM	(uCVml)
6/18/03	Odeli Morgan	PAN2238	006-284	2.5	310	775000	6/19/03	15	12	0.10	3.28E-14
6/18/03	Glenn Huber	PAM2240	002-574	2.5	318	775000	6/19/03	12	12	0.00	0.00€+00
67(9/03	Joei Ahrweller	PAM2241	008-234	2.5	422	1055000	6/20/03	10	11	0.00	0.00E+00
6/19/08	Odeli Morgan	PAM2242	002-574	2.5	424	1060000	6/20/03	11	11	<b>00,0</b>	0.00E+00

Note: There has been no onsite excavation of soil since April 11, 2003. Radiation monitoring of construction activities started on June 16, 2003.

Wednesday 6/18/03 and Thursday 6/19/03 were the only days during this week when thorium contaminated material was excavated and loaded. Air Monitoring not required on other work days

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information. 07/16/2003 07:44 FAX

847 2792535

\$18

CONSULTANTS

Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)
Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 28 June 16 - June 20, 2003

 M	
	. ARABAMAN ANALA MINE IN MINE WY DANIEN MENTER MAKEU
	eneigzed after 4 days to allow for thorium daughter decay

Date Collected	Name	Sample ID	PAM # (Ips		Yotal Campto Volume (mi)	Analysis Date	Grees Counts (30 min)	Counte (36 min)		DAC
		PAM2239 0		2.5 \$10					0.00	0.00%

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCi/ml

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCl/mi

57/16/2003 C7 44 FAX

STS CONSULTANTS

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL.

North Mor	nitor	Week #29 6/23/03 - 6/	27/03	(High Volume)
Date		Effluent Concentration in uCl/ml	Concentration x Sample Min / Day	Comments
6/23/03	0	0.00E+00	0.00E+00	
6/24/03	0	0.00E+00	0.005+00	
6/25/03	0	0.00E+00	0.00E+00	
6/26/03	152	<b>0.00<del>€;1</del>00</b> .0	D.00E+00	
6/27/03	127	0.00E+00	D.00E+00	
	270	0.005+00	0.00=+00	

 $C_{exp} = \Sigma T_{A+} C_1$   $\Sigma T_8$ Eq.A.9 NURSG 1400 Time Weighted Weeldy

Effluent Concentration (North) = 6.00E+60 uCl/ml

Parcentage of Release Limit of = 0.00%

4E-15uCl/ml

South Monitor

SCHOOL WA				
·	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCVmi	Sample Min / Day	Comments
6/23/03	0	0,00E+00	0.00E+00	
6/24/03	D	0.00=400.0	0. <b>00E+0</b> 0	
6/25/03	0	0.00E+00	0.00E <b>+0</b> 0	
6/26/03	146	0. <b>00E+</b> 00	0.00E+00	
6/27/03	131	1,97E-15	2.58E-13	
	277	1.075.15	2 58F-13	<u> </u>

C<sub>mg</sub> = <u>Σ Τ<sub>α</sub> C</u>; Σ Τ<sub>α</sub>

ET AS NUREG 1400

Time Weighted Weekly

Effluent Concentration (South) = 9.32E-16 uCi/ml

Percentage of Release Limit of = 23.29%

4E-15uCi/ml

East Monitor

	Cital tents				
		Time Sampled	Effluent Concentration	Concentration x	•
	Date	(minutes)	in uCVmi	Sample Min / Day	Comments
	6/23/03	0	0.00E+00	0.00E+00	
	6/24/03	0	0.00E+00	0.00E+00	
ı	6/25/03	0	0.00E+00	0.00E+00	
	6/26/03	144	1,75E-15	2. <b>52E</b> -13	
	6/27/03	123	0,0 <b>0</b> E+00	0.00E+00	
		267	1.75E-15	2.52E-13	

 $C_{\text{aug}} = \sum_{i} T_{\text{e,i}} C_{i}$ 

∑ T<sub>a</sub> Eq A.9 NUREG 1400 Time Weighted Weekly

Effluent Concentration (East) = 9.44E-16 uCl/ml

Percentage of Release Limit of = 23,60%

4E-15uCVml

272

Andreas Statement				
	Time Sampled	Effluent Concentration	Concentration x	
Oute		in uCVml	Sample Min / Day	Comments
6/23/03	0	0.00E+00	0.002+00	
6/2//03	0	0.0 <b>0E+0</b> 0	0.00E+00	
8/25/03	•	0.00E+00	0.09E+00	
6/26/03	150	0.80E+00	0. <b>99E+0</b> 0	
6/27/03	122	0.002+00	0. <b>00E+0</b> 0	

0.00E+00

Comp = E Tay Co	Time Weighted Westly	
ΣTa	Effluent Concentration (Meet) =	0.00E+00 uClimi
ENAN NURES 1400	Percentage of Release Limit of =	0.00%

0.002+00

07/16/2003 07:45 FAX 847 2792535

ID:USEPA REGION 5

Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis)
Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 29

June 23, 2003 - June 27, 2003

				total	cubio	numple		day	after a	ralysis			for	ir day a	nalyela		% of Limit
Sample	date	gtant	etop	time	No senite	volume	date	gross	bleg	net	Concentration	debe	gross	D) d	theit	Concentration	4.00E-15
D	sempled	time	<b>time</b>	sampled	(CFM)	aral/sec	anelyzed	counta	counts	optn	in uclimi	atrolyzed	acunta	counts	cpm	in ucumi	uClimi
<b>12054</b>	6/26/03	1:04pm	3:36pm	152	50	7.53E+08	6/27/03	23	11	0.4	1.91E-14	7/1/03	10	12	0	0.00E+00	0.009
2054	6/26/03	1:10pm	3:3 <b>6</b> pm	148	49	7.09E+06	6/27/03	20	11	0.3	1.53E-14	7/1/03	12	12	0	0.00E+00	0.009
2054	6/26/03	1:06pm	3:32pm	144	48	6.86E+06	6/27/03	26	11	0.5	2.63E-14	7/1/03	13	12	0.033	1. <b>75</b> 6-15	43.869
V2054	6/26/03	1:08pm	3:38pm	150	54	9.03E+06	6/27/03	18	11	0.23333	1.05E-14	7/1/03	9	12	0	0.00€+00	0.009
<b>1205</b> 5	8/27/03	12:12pm	2:19pm	. 127	48	5.79E+06	8/30/03	16	13	0.1	6.23E-15	7/2/03	10	12	0	0.00E+00	0.009
32055	6/27/03	12:10pm	2:21pm	131	47	8.10E+06	6/30/03	20	13	0.23333	1.38E-14	7/2/03	13	12	0.033	1.97E-15	49.23
E <b>205</b> 5	6/27/03	12:17pm	2:20pm	123	62	6.34E+06	5/30/03	17	13	0.13333	7. <b>58</b> E-15	7/2/03	12	12	0	0.00E+00	0.00
N2065		12:15pm		122		6.17E+06	6/30/03	14	13	0.03333	1.95E-15	7/2/09			Q	0.00E+00	0.00
			/ 6/27/03 w		eineted												
		wated and her work d	loaded. A Bys	ir Montter	ing												

# Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)

Week 29 June 23 - June 27, 2003

Lakeshare Best Project - 221 North Columbus Drive, Chicago, IL

\*\*\* All PAM's with elevated counts on day after analysis are recounted after 4 days (see attached)

				Flow	Total	Total		Gross	Bikg		Sample
Date				Rete	Time	Sample	Analysis	Counts	Counts	Net	Concentration
Collected	Name	Sample ID	PAM #	(tpm)	Sampled	Volume (mi)	Date	(30 min)	(30 min)	CPM	(uCl/ml)
8/26/03	Tim O'Brien	PAM2243	002-574	2.5	178	437500	6/27/09	11	11	0.00	0.00##00
0/26/03	Odeli Morgen	PAM2244	006-234	2.5	175	437500	6/27/03	10	11	0.00	0.002+00
0/27/03	Odell Morgan	PAN2245	008-234	2.6	422	1055000	8/30/03	11	13	0.00	0.002+00
	Tim O'Brien	PAM2246	002-574	2.5	424	1980000	6/30/03	13	13	0.00	0. <b>00E+0</b> 0

Thursday 6/26/05 and Friday 6/27/03 were the only days during this week when thorium contaminated material was axcevated and toaded. Air Monitoring not required on other work days

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information. STS CONSULTANTS

07/16/2003 CT

Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)

Week 29 June 23 - June 27, 2003

07/16/2003 07:45 FAX

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STS CONSULTANTS

Lekeshore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\*Note: All samples on this page were analyzed after 4 days to allow for thorium daughter decay

				Flow	Total	Total		Gross	Bkg		Sample	% of
Date		į l		Rate	Time						Concentration	DAC
Collected	Name	Sample ID	PAM#	(1pm)	Sempled	Volume (m/)	Date	(30 min)	(30 min)	CPM	(uCi/ml)	·

No 4 day analysis of PAM's required for this monitoring period

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCi/ml

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/ml

STS JLL-14-2003 11:41 07/14/03 WOK 09:57 FAX 815 485 4433

STAN HUBER CONSL

947 279 2535 P.82/89 002

# Area Air Monitoring Summary Shoot - Weekly Effluent Concentration Report Laboratione East Project - 221 North Columbus Drive, Chicago, E.

Marth Ma	ujiar	Work 505 6/56/03 - 75		(Fligh Volume)
Date	Time Dampted (physical)	Elithent Concentration to uClimi	Concentration × Sample Min / Day	Cutarnesis
6500	1	C.DEE+00	0.0UE+00	
7/1/03			5. <b>095</b> -13	
7/2/00		0.005+00	0.00E+00	1
7/2/00		0.005-00	0.002+00	1
7/4/03	•	0.005+00	0.005+00	
	13	1.89E-15	S ASE 13	

C-- IIIG

6.705-16 uCital

	Time Sampled	Educat Concentration	Concession x	
	Series de la constitución de la	in uChief	George Man / Day	Commonts
6/35/65	212	8.00E+00		
7/1/89	362	0.00E+00	0.00E+00	
7/2/00	320	1.842-15	6.05E-13	
7/3/03	0	0.00E+00	0.00E+60	
7/4/03	0	0.00E+00	0.005+00	
	843	1.ME-15	0.005-13	

C-FILG ET.

7.1815-46 uClini

	Time Sampled	Ethers Concentration	Concentration x	
Date	(referring)	to uçiáni	Sangly Min / Day	Comments
0.000	200	1.196-15	2.44E-13	
7/1/00	270	0.00E+00	0.002+00	
7040		0,085+00	0.000-00	
7/4/00		0.00E+00	0.00E+00	
7/4/00	o	E.ODE+OO		
		1,148-15	2.448-13	

C\_\_= 11.C

( Consuntation (See ) 1.005-16 aCS/ml ago of Roleago Limit of =

ET.

4E-154CSHI

JUL-14-2223 11:41 STS 07/14/03 MON 09:57 PAX 815 485 4433

STAN HUBER CONSL

847 279 2535 P.03/09

**4**003

West Monitor

A A A SA S				
	Time Sampled	Effluent Concentration	Concentration k	
Date	(minutes)	in u <b>ci/m</b> i	Sample Min / Day	Comments
6/30/03	208	0.00E+00	0.00E+00	
7/1/03	295	0.00 <b>E+0</b> 0	0.00E+00	
7/2/03	320	8.24E-16	2.64E-13	
7/9/03	O	0.00E+00	0.00E+00	
7/4/03	0	0.00E+00	0.005+00	
	821	R 245-16		<u> </u>

C<sub>req</sub> ± <u>∑ T<sub>al</sub> Ç</u>ı 2 T<sub>a</sub>

Eq.A. I NUR**eg** 1400

Time Weighted Weekly

Effluent Concentration (Next) = 3.216-44 ucidist

Percentage of Release Limit of = 8.09%

PAGE:019 R=96%

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Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Dally Analysis)
Lakestore Best Arquet - 221 North Columbus Drive, Chibago, IL

Wook	30			June :	10, 201	13 - July	4, 2003										
				1111	adto	terreple				nebrolo			Per	day a			Not Und
tionpis 1	date	adapt 1	<b>etop</b>	Ome .	# min	Waterso	dada	97000		net	Consenbulle	date	Front	Mg	***	Concertation	4005-46
)D	eempled	<u> </u>	Bigo	egmeted	(CPM)		analysiss)	<b>Opusit</b>	counts	990	in gallini	epulgated	-		epro	in ucitini	uClini
12000	10000	est tem	1:22pm	211	60	1.085+07	7/1.05	76	12	0.2	8.D <b>(8</b> -46	TARS	11	13	0	0.50E+00	0.05%
82056	60000	<b>9:00em</b>	1:27pm	212	82	1.005+07	7/1/08	20	12	0.80007	1.876-44	7/7703	12	13	Đ	0. <b>00E+00</b>	0.00%
E2086	0/30/83	<b>8:82mm</b>	1:20pm	200	49	1.01E+07	7/1.03	27	12	0.5	1.7 <b>65-14</b>	7/7/03	14	13	0.033	1.106-16	20,74%
W2088	65003	<b>0:68am</b>	1:24pm	200	49	1.00E+07	7/1/83	21	12	9.3	1.00E-14	7/7/09	18	18	Q	0.00 <b>E+6</b> 0	0.00%
N2067	7/1/03	8:07am	1:00pm	200	43	1.278+07	7/2/03	74	12	2.08667	6. <b>05E-14</b>	7/7703	16	12	0.087	1. <b>692-</b> 15	47.16%
<b>@2057</b>	7/1/03	ik02em	1:04pm	309	46	1.36E+07	772/01	50	12	1.86300	4.18E-14	7/7/03	113	13	0	0.006+80	0.80%
<b>E2057</b>	7/1/03	&11em	12:50pm	276	41	1.138+07	7/2/01	. 4	12	1	3.185-14	7/7/03	11	13	0	0.905+00	0.00%
W2087	7/1/03	S:07mm	1:82pm	206	45	1,82E+07	7/2/09		12	1.20007	3.74 <b>6</b> -14	7/7/08	19	18	0	@.00E+00	0.00%
H2060	7/2/03	7:00era	1:25pm	220	42	1.305+07	7/8/00	44	13	1.09999	2.785-14	7/7/03	12	13	0	0.00E+00	0.00%
<b>02000</b>	7/2/09	7:00am	1:27pm	120	40	1.305+07	7/1/00	22	18	0.8	<b>8.296-1</b> 5	7/7/00	15	13	0.067	1.645-15	40.07%
E2080	7/2/03	8:00am	1:22pm	322	42	1.345+07	7/3/00	20	18	0.53363	1.435-14	7/7/00	12	13	•	D. <b>065+0</b> 0	0.00%
W2068	7/2/03	<b>8:04em</b>	1: <b>34pm</b>	3200	46	1.486+07	7/3/00	34	13	0.7	<b>1.785-14</b>	1/7/09	14	13	0.033	8.245-16	20.60%
only day material	e dusing th	ds week w raded and	deeday 7, han thoriu loaded. Al ays	n centari	inated								•			pice were Wh of July	

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STAN HUBER CONSI

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Personal Air Monitoring Summary Sheet (PAM's -Dally Analysis)

Lakeshare East Project - 221 North Columbus Orive, Chicago, IL

\*\*\* All PAM's with elevated counts on day after analysis are recounted after 4 days (see attached)

Week 30 June 30 - July 4, 2003

				Flow	Total	Total		Gross	ako .		Sarcpie
Date			ł	Rate	Time	Suntple	Anelysia	Counts	Counts	Net	Contentration
Collected	- Marie	Sample 10	PAM#	( <b>(pm</b> )	<b>Sampled</b>	Volume (mt)	Date	(30 min)	(30 mln)	CPM	(uCl/mi)
6/30/03	Odell Morgan	PAM2247	002-574	2.5	355	887500	7/1/03	10	12	0.00	0.DQE+DQ
8/38/93	Tim O'Brien	PAM2248	006-234	2.5	355	887500	7/1/03	11	12	0.00	0,00E+00
7/1/03	Odell Morgan	PAM2249	006-234	2.5	290	725000	7/2/03	.20	12	0.27	9.24E-14
7/1/02	Tim O'Brien	PAM2250	002-574	2.5	290	725000	7/2/03	14	12	0.07	2.32E-14
7/2/03	Odell Morgan	PAM2251	002-574	2.5	388	970009	7/3/03	13	13	0.00	<b>0.00€+0</b> 0
7/2/09	Tim O'Brien	PAM2262	008-234	2.5	386	974000	7/3/03	16	13	0.10	2,60E-14

Monday 6/30/03 through Wednesday 7/2/03 were the only days during this week when therium conteminated material was excavated and haded. Air Monitoring not required on other work days

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information.

07/16/2003 07:45 FAX

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Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)
Lakeshare East Project - 221 North Columbus Drive, Chicago, IL

Week 30 June 30 - July 4, 2003

			TNOIS:	LE SOMPLOS	ca this pag	e mele subjace	Carter 4 Ca	he to ellow.	for therium d		ter decay	
Date Collected	Marne	Sample ID	PAMe	Flow Rate Ipmi	Total Time	Totel Sample Volume (mi)	Analysia Data		Counts ( (30 min) C		Sample Concentration (uCl/mi)	N of DAC
7/1/03	Odell Morgan	PAU2249	068-234	2.5	290	725000	7/7/03	12	13	0.00	0.00E+00	0.00%
	Tim O'Brien	PAM2250 PAM2252	002-574 006-234	2.5 2.5		725000 970000		13 11	13 (		0.00E+00 0.00E+00	0.00% 0.00%

Occupational Dose Limit for Occupational Rectiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCi/ml

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/ml



STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061-3153

fax

847-279-2510

web www.stsconsultants.com

June 23, 2003

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for May 2003, 221 N. Columbus Drive, Chicago, Illinois

STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during May 2003 and activities planned or expected during May 2003.

### **PROGRESS DURING MAY 2003**

- No excavation or remediation activities were conducted that required surveying for the detection of radiologically-impacted soils.
- 2. A draft of the closure report was completed and submitted to the client for review in late May.

### **PLANNED ACTIVITIES FOR JUNE 2003**

- 1. It is anticipated that infrastructure and construction activities will resume in mid-June. Gamma surveys will continue to be conducted on a periodic basis as infrastructure or construction related activities occur within the former slip areas. The USEPA will be notified upon discovery of radiologically-impacted materials. Excavation activities will take place as necessary to remediate radiologically-impacted soil discovered and the USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- Monthly reports will continue to be submitted to the USEPA until submittal of the closure report.
- 3. The submittal of a revised draft closure report to the USEPA, which incorporates the comments of the client, is anticipated for late June or early July 2003.

Please contact us at 847-279-2500 with any questions regarding this report and the state of the

Regards,

STS CONSULTANTS, LTD.

Steven C. Kornder, Ph.D. Senior Project Geochemist

**Attachments** 

STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC June 23, 2003 Page 2

cc: Kara Hughes, Lakeshore East, LLC Sean Bezark, Altheimer & Gray Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC



STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061-3153

voice fax web 847-279-2500 847-279-2510 www.stsconsultants.com

May 13, 2003

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for April 2003, 221 N. Columbus Drive, Chicago, Illinois - STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during April 2003 and activities planned or expected during May 2003.

### **PROGRESS DURING APRIL 2003**

- Infrastructure related remedial activities commenced at the site on March 10 and continued through April 11, 2003. Remediation involved the excavation of soil within the former northern slip area, primarily grids 9 through 11, to establish the base grade necessary for roadway development (refer to attached Figure). Area air monitoring and personal monitoring were conducted during these remediation activities.
- 2. In early April personal and area air monitoring was conducted during the excavation and/or handling of radiologically-impacted soil in accordance with the approval issued by the USEPA on December 13, 2002. No exceedances of the allowable limits for personal or area air monitoring have been observed. Results for the air monitoring conducted during April are included within Attachment 1.
- 3. Table 1 below summarizes the quantity of radiologically-impacted material excavated during April and provides a cumulative total for the site.

Table 1
Impacted Soil Loading Summary

Date	Containers Loaded - Weekly Totals	Cumulative Project Total
As of March 31, 2003		205
April 1-10,2003	17	222

4. Verification surveys for infrastructure remedial activities were completed by the USEPA on April 4 and 11, 2003. The grid location and date the notice of successful verification was signed by the USEPA are provided in Table 2. For notation purposes each grid was divided into four quadrants denoted with letters starting with the northwest corner (A) and proceeding in a clockwise direction (i.e., 9A, 9B, 9C and 9D).

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC May 13, 2003 Page 3

Table 2 **Notice of Successful Verification** 

Survey Grid Designations	USEPA Signature Date
9A#1, 9A#2 and 9B36A	4/2/2003
9D/9C NE, 9D/9C SE, 9D/9C NW, 9D/9C SW and 10D#2	4/15/2003
11C#1, 11C#2, 11D, 10C, 10D#1, 9C and 0D#3	4/16/2003

5. A 500 gallon underground storage tank (UST) was discovered during the infrastructure remedial activities on April 3, 2003. The UST was removed on Friday April 18, 2003 in accordance with IEPA regulations. No evidence of a petroleum impact in the soil beneath the tank was noted. The UST site showed no indications of radiological impacts.

### **PLANNED ACTIVITIES FOR MAY 2003**

- 1. Gamma surveys will continue to be conducted on a periodic basis as infrastructure or construction related activities occur within the former slip areas. The USEPA will be notified upon discovery of radiologically-impacted materials. Excavation activities will take place as necessary to remediate radiologically-impacted soil discovered and the USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 2. Monthly reports will continue to be submitted to the USEPA until submittal of the closure report.
- 3. Preparation of the closure report continues with submittal of a draft anticipated in May 2003.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

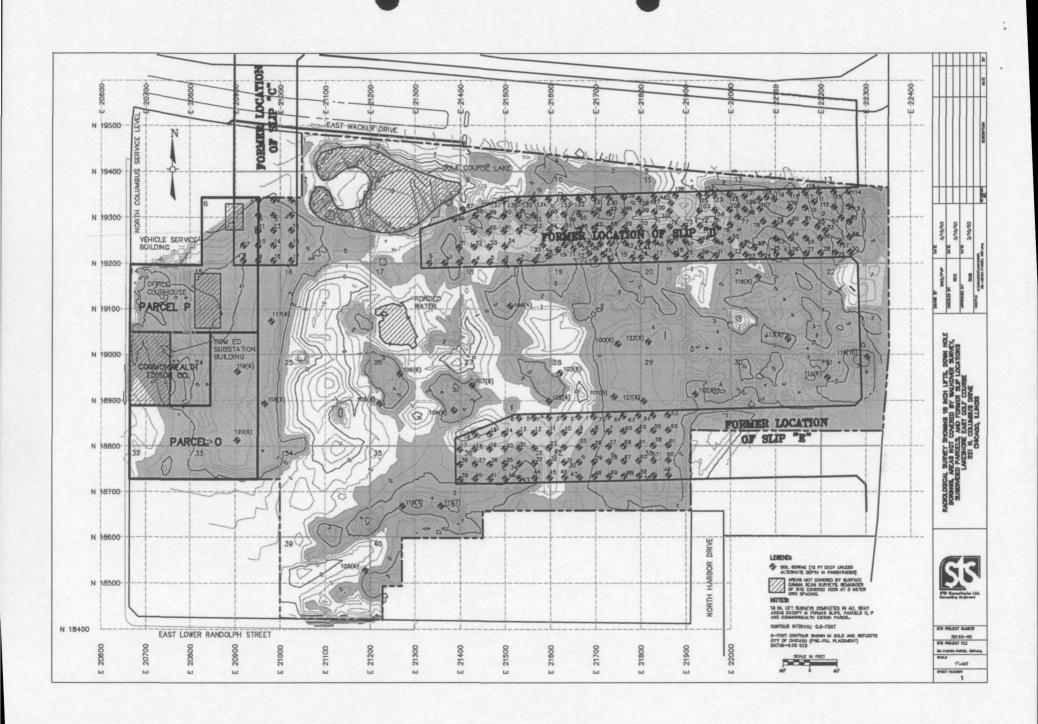
Steven C. Kornder, Ph.D. Senior Project Geochemist

**Attachments** 

Kara Hughes, Lakeshore East, LLC CC: Sean Bezark, Altheimer & Gray

Barbara Magel, Karaganis, White & Magel

Mark Krippel, Kerr-McGee Chemical LLC



### **ATTACHMENT A**

**April Air Monitoring Results** 

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

North Moi	nitor	Week #26 3/31/03-4/4	I/03	(High Volume)
Date	,	Effluent Concentration in uCl/ml	Concentration x Sample Min / Day	Comments
3/31/03				<u> </u>
4/1/03	422	0.00E+00	0.00E+00	
4/2/03	427	6.04E-16	2.58E-13	
4/3/03	406	2.30E-15	9.34E-13	
4/4/03	. 0	0.00E+00	0.00E+00	No Field Work on 4/4/03 - Rained Out
	1714	3 55⊏_15	1 40F-12	

 $C_{\text{avg}} = \underline{\Sigma} \, \underline{T}_{s,i} \, \underline{C}_i$ 

Time Weighted Weekly

Effluent Concentration (North) = 8.68E-16 uCi/ml

Eq A.9 NUREG 1400

21.69% Percentage of Release Limit of =

4E-15uCi/ml

South Monitor

Godal Mo				
	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCi/ml	Sample Min / Day	Comments
3/31/03	459	0.00E+00	0.00E+00	
4/1/03	422	1.34E-15	5.65E-13	
4/2/03	427	0.00E+00	0.00E+00	
4/3/03	408	0.00E+00	0.00E+00	
4/4/03	0	0.00E+00	0.00E+00	No Field Work on 4/4/03 - Rained Out
	1716	1.34E-15	5.65E-13	

 $C_{\text{avg}} = \sum T_{\text{e.i.}} C_{\text{i.i.}}$ 

 $\Sigma T_{R}$ 

Eq A.9 NUREG 1400

Time Weighted Weekly

Effluent Concentration (South) =

3.30E-16 uCi/ml

Percentage of Release Limit of = 8.24%

4E-15uCi/ml

**East Monitor** 

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCi/ml	Sample Min / Day	Comments
3/31/03	455	0.00E+00	0.00E+00	
4/1/03	420	6.71E-16	2.82E-13	
4/2/03	429	7.44E-16	3.19E-13	
4/3/03	415	6.22E-16	2.58E-13	
4/4/03	0	0.00E+00	0.00E+00	No Field Work on 4/4/03 - Rained Out
	1719	2.04E-15	8.59E-13	

 $C_{evg} = \Sigma T_{e,i} C_i$ 

 $\Sigma T_{s}$ 

Eq A.9 NUREG 1400

Time Weighted Weekly

Effluent Concentration (East) = 5.00E-16 uCi/ml

Percentage of Release Limit of = 12.49%

4E-15uCi/ml

### West Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCl/ml	Sample Min / Day	Comments
3/31/03	455	0.00E+00	0.00E+00	
4/1/03	420	0.00E+00	0.00E+00	
4/2/03	434	0.00E+00	0.00€+00	
4/3/03	410	0.00E+00	0.00E+00	
4/4/03	Q	0.00E+00	0.00E+00	No Field Work on 4/4/03 - Rained Out
	1719	0.00F+00	0.00E+00	5

 $C_{evg} = \sum T_{e} C_{i}$  $\sum T_{e}$ Eq A.9 NUREG 1400

Time Weighted Weekly	
Effluent Concentration (West) =	0.00E+00 uCi/ml
Percentage of Release Limit of =	0.00%

Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis)

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 26

March 31, 2003 - April 4, 2003

				total	cubic	semple		day	after a	nalysis			foc	ir day a	nalysis		% of Limit
Sample	date	start	stop	time	ft/ min	volume	date	gross	bkg	net	Concentration	date	gross	bkg	net	Concentration	4.00E-15
10	sampled	time	time	sampled	(CFM)	analyzaci	analyzed	counts	counts	opm	in uCi/ml	analyzed	counts	counts	cpm	in uCi/ml	uCi/ml
N2047	3/31/03	8:09am	3:48pm	459	41	1.87E+07	4/1/03	58	12	1.53333	2.96E-14	4/4/03	13	12	0.033	6.44E-16	16.11%
S2047	3/31/03	8:16am	3:55pm	459	45	2.05E+07	4/1/03	64	12	1.73333	3.05E-14	4/4/03	12	12	0	0.00E+00	0.00%
E2047	3/31/03	8:10am	3:45pm	455	47	2.12E+07	4/1/03	71	12	1.96667	3.35E-14	4/4/03	10	12	0	0.00E+00	0.00%
W2047	3/31/03	8:15am	3:50pm	455	52	2.34E+07	4/1/03	66	12	1.8	2.77E-14	4/4/03	12	12	0	0.00E+00	0.00%
N2048	4/1/03	8:25am	3:27pm	422	47	1.97E+07	4/2/03	481	11	15.6667	2.87E-13	4/7/03	10	12	0	0.00E+00	0.00%
S2048	4/1/03	8:23am	3:25pm	422	43	1.80E+07	4/2/03	426	11	13.8333	2.77E-13	4/7/93	14	12	0.067	1.34E-15	33.41%
E2048	4/1/03	8:25em	3:25pm	420	43	1.79E+07	4/2/03	439	11	14.2667	2.87E-13	4/7/03	13	12	0.033	6.71E-16	16.78%
W2048	4/1/03	8:21am	3:21pm	420	42	1.75E+07	4/2/03	455	11	14.8	3.05E-13	4/7/03	11	12	0	0.00E+00	0.00%
N2049	4/2/03	8:18am	3:25pm	427	47	1.99E+07	4/3/03	58	10	1.6	2.90E-14	4/7/30	13	12	0.033	6.04E-16	15.10%
S2049	4/2/03	8:21am	3:28pm	427	42	1.78E+07	4/3/03	61	10	1.7	3.45E-14	4/7/03	10	12	0	0.00E+00	0.00%
E2049	4/2/03	8:20am	3:29pm	429	38	1.62E+07	4/3/03	67	10	1.9	4.24E-14	4/7/03	13	12	0.033	7.44E-16	18.5 <del>9</del> %
W2049	4/2/03	8:17am	3:31pm	434	41	1.76E+07	4/3/03	50	10	1.33333	2.73E-14	4/7/03	12	12	0	0.00E+00	0.00%
N2050	4/3/03	8:42am	3:38pm	406	39	1.57E+07	4/4/03	70	12	1.93333	4.44E-14	4/10/03	16	13	0.1	2.30E-15	57.43%
S2050	4/3/03	8:34am	3:22pm	408	45	1.82E+07	4/4/03	112	12	3.33333	6.60E-14	4/10/03	13	13	0	0.00E+00	0.00%
E2050	4/3/03	8:36am	3:31pm	415	47	1.93E+07	4/4/03	158	12	4.86667	9.08E-14	4/10/03	14	13	0.033	6.22E-16	15.54%
W2050	4/3/03	8:40am	3:30pm	410	47	1.91E+07	4/4/03	131	12	3.96667	7.49E-14	4/10/03	11	13	0	0.00E+00	0.00%
No Field	Work on	<b>4/4/03</b> - F	kained Out	<b>!</b>													

<sup>\* 4</sup> day analysis of air samples collected on 4/3/03 (2050) were not analyzed until 4/10/03 because we did not work on 4/8/03 and 4/9/03

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

North Mor	nitor	Week #27 4/7/03-4/11	/03	(High Volume)
Date	•	Effluent Concentration in uCi/ml	Concentration x Sample Min / Day	Comments
4/7/03	0	0.00E+00	0.00E+00	
4/8/03	0	0.00E+00	0.00E+00	
4/9/03	0	0.00E+00	0.00E+00	
4/10/03	404	0.00E+00	0.00E+00	
4/11/03	0	0.00E+00	0.00E+00	
	404	0.00E+00	0.00E+00	

 $C_{\text{avg}} = \Sigma T_{\text{s.i.}} C_{\text{i.i.}}$ 

 $\Sigma T_{s}$ 

Time Weighted Weekly

Effluent Concentration (North) = 0.00E+00 uCi/ml Percentage of Release Limit of =

0.00%

Eq A.9 NUREG 1400 4E-15uCi/ml

South Monitor

00007 1170				
	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCi/ml	Sample Min / Day	Comments
4/7/03	0	0.00E+00	0.00E+00	
4/8/03	0	0.00E+00	0.00E+00	
4/9/03	0	0.00E+00	0.00E+00	
4/10/03	0	0.00E+00	0.00E+00	No sample collected today-equipment
4/11/03	0	0.00E+00	0.00E+00	
	0	0.00E+00	0.00E+00	

 $C_{avg} = \Sigma T_{e,i} C_i$ 

Eq A.9 NUREG 1400

Time Weighted Weekly

Effluent Concentration (South) =

#DIV/01 uCi/ml

Percentage of Release Limit of = #DIV/0!

4E-15uCi/ml

Fast Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCi/ml	Sample Min / Day	Comments
4/7/03	0	0.00E+00	0.00E+00	
4/8/03	0	0.00E+00	0.00E+00	
4/9/03	0	0.00E+00	0.00E+00	
4/10/03	406	0.00E+00	0.00E+00	
4/11/03	0	0.00E+00	0.00E+00	
	406	0.00E+00	0.00E+00	

 $C_{avg} = \underline{\sum T_{s,i} C_i}$ 

 $\Sigma T_s$ 

Eq A.9 NUREG 1400

Time Weighted Weekly

Effluent Concentration (East) ≈ 0.00E+00 uCi/ml

Percentage of Release Limit of = 4E-15uCi/ml

0.00%

### West Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCi/ml	Sample Min / Day	Comments
4/7/03	0	0.00E+00	0.00E+00	
4/8/03	O	0.00E+00	0.00E+00	
4/9/03	o	0.00E+00	0.00E+00	
4/10/03	406	0.00E+00	0.00E+00	
4/11/03	0	0.00E+00	0.00E+00	
	406	0.00F+00	0.00F+00	

 $C_{avg} = \underline{\Sigma T_{s,i} C_i}$   $\Sigma T_s$ Eq A.9 NUREG 1400

Time Weighted Weekly

Effluent Concentration (West) = 0.00E+00 uCi/ml

Percentage of Release Limit of =

0.00%

Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis)

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 27

April 7, 2003 - April 11, 2003

				total	cubic	sample		day	after a	nalysis			fou	ır day a	nalysis		% of Limit
Sample	date	start	stop	time	ft/ min	volume	date	gross	bkg	net	Concentration	date	gross	bkg	net	Concentration	4.00E-15
ID	sampled	time	time	sampled	(CFM)	analyzed	analyzed	counts	counts	cpm	in uCi/ml	analyzed	counts	counts	cpm	in uCi/ml	uCi/ml
N2051	4/10/03	8:04am	2:48pm	404	48	1.92E+07	4/11/03	21	11	0.33333	6.25E-15	4/15/03	11	13	0	0.00E+00	0.00%
S2051	4/10/03	No sample	e collected	- see not	e below												0.00%
E2051	4/10/03	8:04am	2:50pm	406	52	2.09E+07	4/11/03	23	11	0.4	6.89E-15	4/15/03	13	13	0	0.00E+00	0.00%
W2051	4/10/03	8:02am	2:48pm	406	38	1.53E+07	4/11/03	18	11	0.23333	5.50E-15	4/15/03	10	13	0	0.00E+00	0.00%
when tho	orium conta ed. No Sc	was the on aminated r outh Monitor se monitor	naterial wa or sample v	is excavat was taken	ted												

Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)

Week 26 March 31 - April 4, 2003

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\* All PAM's with elevated counts on day after analysis are recounted after 4 days (see attached)

Date Collected	Name	Sample ID	PAM #	Flow Rate (Ipm)	Total Time Sampled	Total Sample Volume (mi)	Analysis Date	Gross Counts (30 min)	Bkg Counts (30 min)	Net CPM	Sample Concentration (uCi/ml)
4/10/03	Jerry Krane	PAM2237	006-234	2.5	370	925000	4/11/03	9	11	0.00	0.00E+0
4/10/03	Odell Morgan	PAM2238	002-766	2.5	555	1387500	4/11/03	11	11	0.00	0.00E+00

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information.

Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)

Week 27 April 7 - April 11, 2003

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\*Note: All samples on this page were analyzed after 4 days to allow for thorium daughter decay

Date Collected	Name	Sample ID	PAM#	Flow Rate (ipm)	Total Time Sampled	Total Sample Volume (ml)	Analysis Date	Gross Counts (30 min)	Bkg Counts (30 min)	Sample Concentration (uCi/ml)	% of DAC
lo 4 day ana	lysis of PAM's	required for 1	this monit	oring per	iod						<u> </u>

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCi/ml

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/ml



### STS Consultants, Ltd.

750 Corporate Woods Perkway Vemon Hills, IL 60061 Phone. (847) 279-2500 FAX: (847) 279-2510

### **FACSIMILE TRANSMISSION**

rate:	April 16, Zuus					
To:	Vemeta Simon/F	red Micke	USEPA		Fax#:	312-353-9176
	Kara Hughes		Lakeshor	e East, LLC	Fax #:	312-642-2773
	Sean Bezark	_	Altheime	r & Gray	Fax#	312-715-4800
	Barbara Magel	<del>_</del> . ,,	Karagani	s, White & Magel Ltd	. Fax#:	312-836-9083
	Mark Krippel		Кеп-МсС	See Chemical LLC	Fax#:	630-231-3990
Pages	being transmitte	d, incl. Cover	26	· · · · · · · · · · · · · · · · · · ·		
CC:			Fax No.:			
From:	Steve Kornder		Phone:	847-279-2500		
Re:	Lakeshore East,	221 N. Columi	bus Dr., Chicago, IL			
☐ Urger	nt  For Signature	For Review	Please Comment/Reply	As Requested	] Original to	Follow
Messa	lge:					

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IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL (847) 279-2500 IMMEDIATELY

APR-16-2003 03:24PM FAX:847 2792535

ID:USEPA REGION 5

PAGE:001 R=96%



STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061-3153 voice 847-279-2500 fax 847-279-2510 web www.stsconsullants.com

April 16, 2003

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE: Monthly Progress Report for March 2003, 221 N. Columbus Drive, Chicago, Illinois – STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during March 2003 and activities planned or expected during April 2003.

### **PROGRESS DURING MARCH 2003**

- The grading phase (lift) surveys of historical fill (Phase III) were completed on March 7, 2003. A
  letter was submitted to the USEPA, which indicated that the Phase II (remediation of identified
  radiologically-impacted materials) and Phase III (lift survey) activities were complete. The letter
  requested that the USEPA approve the initiation of the closure report activities. A letter from the
  USEPA dated March 19, 2003 provided draft wording. A response to the USEPA's letter was sent
  April 7, 2003.
- 2. Construction/infrastructure related activities commenced on March 10, 2003 following the completion of the lift survey phase (Phase III). Initial activities involved the excavation of soil within the former northern slip area to establish the grades necessary for future roadway/infrastructure development. The excavation focused primarily on the former northern slip in grid areas 9 through 11 (refer to attached Figure). Excavations proceeded in lifts and were surveyed for elevated gamma radiation as the excavation proceeded. Personal air monitoring was performed on personnel performing the gamma radiation surveys.
- 3. The USEPA was notified via telephone on March 11, 2003 of the initial discovery of elevated gamma reading during the infrastructure excavation in the former northern slip area (grid 9). Areas with elevated gamma readings were designated as exclusion zones and will be managed according to procedures outlined in the site Work Plan.
- 4. During infrastructure related activities a test pit was excavated in grid 36 on March 24, 2003. A gamma radiation survey conducted during the excavation observed elevated gamma readings. The area was designated as an exclusion zone.
- Excavation of radiologically-impacted soil was initiated the week of March 24, 2003. Areas of
  excavation included the identified exclusion zones in the grids 9 and 36. Area air monitoring and
  personal monitoring were conducted during the remediation activities.
- 6. Table 2 below summarizes the quantity of radiologically-impacted material excavated during March and provides a cumulative total for the project.

100-114-7 (3/019)

APR-16-2003 03:24PM

FAX:847 2792535

ID:USEPA REGION 5

PAGE:002 R=96%

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC April 16, 2003 Page 3

> Table 2 Impacted Soil Loading Summary

Date	Containers Loaded - Weekly Totals	Cumulative Project Total
As of February 28, 2003		178
March 3-7	1	177
March 10-14	0	177
March 17-21	0	177
March 24-28	24	201
March 31	4	205

7. Verification surveys were completed by the USEPA in four areas on March 27, 2003. The grid location and date the notice of successful verification was signed by the USEPA are provided in Table 2. Please note that for notation purposes each grid is divided into four quadrants denoted with letters starting with the northwest comer (A) and proceeding in a clockwise direction (i.e., 9A, 9B, 9C and 9D).

Table 1
Notice of Successful Verification

Survey Grid Designation	USEPA Signature Date
9A#1	4/2/03
9A#2	4/2/03
9B	4/2/03
36A	4/2/03

8. Personal and area air monitoring was conducted during the excavation and/or handling of radiologically-impacted soil in accordance with the approval issued by the USEPA on December 13, 2002. As approved by the USEPA, monitoring during survey activities was limited to personal air monitoring. No exceedances of the allowable limits for personal or area air monitoring have been observed. Results for the air monitoring conducted during March are included within Attachment 1.

### **PLANNED ACTIVITIES FOR APRIL 2003**

- The isolated areas of radiologically-impacted material identified during the infrastructure excavations
  in the former northern slip will be excavated. The USEPA will be requested to survey the areas and
  sign-off that each area has successfully remediated.
- 2. In accordance with the Work Plan approval issued by the USEPA on December 13, 2002, area air monitoring will only be conducted at the site during excavation or handling of radiologically-impacted soils. Personal air monitoring will be performed during excavation activities or test pit investigations conducted within the former slip areas.
- 3. Gamma surveys will continue to be periodically conducted during infrastructure and construction related activities within the former slip areas. The areas will be surveyed for elevated gamma radiation as the activities proceed. The USEPA will be notified upon discovery of radiologically-impacted materials. Excavation activities will take place as necessary to remediate radiologically-impacted soil discovered during the infrastructure/construction related activities. The USEPA will be

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U.S. Environmental Protection Agency STS Project No. 1-32193-XC April 16, 2003 Page 3

requested to conduct verification surveys and sign-off that the areas have been successfully remediated.

- 4. In accordance with Work Plan the fill soils imported to the site will be tested for total radium at least once per 10,000 cubic yards for each borrow source.
- 5. Monthly reports will continue to be submitted to the USEPA until submittal of the closure report. We request receipt of written authorization providing your concurrence.
- 6. Preparation of the closure report will continue. Submittal of a draft is anticipated in May 2003.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Kornder, Ph.D. Senior Project Geochemist

### **Attachments**

cc: Kara Hughes, Lakeshore East, LLC
Sean Bezark, Altheimer & Gray
Barbara Magel, Karaganis, White & Magel
Mark Krippel, Kerr-McGee Chemical LLC

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ATTACHMENT A

**March Air Monitoring Results** 

## Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lekeshore East Project - 221 North Columbus Drive, Chleago, IL.

<b>Horth Mor</b>	Mor	Week #25 3/24/03-3/2	28/03	(High Volume)
Data	_		Sample Man / Day	Comments
3/24/03	462	0.00E+00	0.00 <b>E+</b> 00	
3/25/03	363	1.715-15	6.55E-13	
3/26/03	458	8.48E-16	2.966-13	
3/27/03	433	0.00E+00	0.00E+00	
3/28/03	399	0,00E+00	0.00€+00	
	2135	2.36E-15	9.51E-13	

 $C_{\text{tot}} = \sum T_{\text{t}} C_{\text{t}}$ 

 $\Sigma T_{\bullet}$ 

Eq A.9 MUREG 1400

Time Weighted Weekly Efficient Concentration (North) =

Percentage of Release Limit of =

4.45E-14 uCVml

11.13%

4E-15uCimi

Courth Marshar

10000	Time Sampled	Effluent Concentration	Concentration x	
			Semple Min / Day	Comments
3/24/03	472	0.10E+00	0,00E+00	
3/25/03	383	0.00E+00	0.00E+00	
3/26/03	458	1.89€-15	8.66E-13	
3/27/03	433	0.00 <del>E+00</del>	0,00E+00	
3/28/03	394	0.00E+00	0.00E+00	
	2140	1,896-15	8.68E-13	

 $C_{mq} = \sum T_{n1}C_{n}$ 

**Eq A.9 MURE**© 1400

Time Weighted Weekly Effluent Concentration (South) =

4E-15uCVml

Percentage of Release Limit of =

4.04E-16 uCi/mi 10.11%

Foot Monitor

EDIT INVIN				
	Time Sampled	Effluent Concentration	Concentration x	
	(minutes)	in uCl/ml	Sample Min / Day	Comments
3/24/03	463	5.826-16	2.09E-13	
3/25/03	383	0.00E+00	0.00€+00	· ·
3/26/03	458	0.00E+00	0.00E+00	
3/27/03			7.59E-13	
3/26/03	ľ	[		
المناب القرائب المساد	2139		1.62E-12	

 $C_{max} = \sum T_{max} C_{max}$ 

Time Weighted Weekly

Efficient Concentration (East) # Percentage of Release Limit of = 7.57E-1\$ uCl/ml 18,92%

Eq A.9 MUNEG 1400

4E-15uCimi

West Monitor

		Effluent Concentration in uCl/ml	Sample Min / Day	Comments
3/24/03	484	1.05E-15	4,87E-13	<del>.</del>
3/25/03	380	2.1 <b>3E-1</b> 5	8.09E-13	
3/26/03	460	0.00 <del>E+</del> 00	0.00E+00	
3/27/03	436	0.00E+00	0.00 <del>E+0</del> 0	
3/26/03	399	8.00E-16	3,19E-13	
	2139	3.98E-15	1.62E-12	

C<sub>aug</sub> = Σ]<sub>τι</sub>C<sub>i</sub> Σ T<sub>s</sub> Eq A 9 NUREG 1400 Time Weighted Weekly

Effluent Concentration (West) = 7.55E-16 uCi/ml

Percentage of Rolease Limit of = 18.89%

04/16/2003 15:27 FAX

847 2792535

STS CONSULTANTS

Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)

Lekeshare East Project - 221 North Columbus Drive, Chloago, IL

\*\*\* All PAM's with elevated counts on day after analysis are recounted efter 4 days (see attached)

Week 25 March 24 - March 28, 2003

				Flow	Total	Total		Gross	Bleg		Semple
Data		1		Rate	Time	Sample	Analysis	Counte	Counts	Net	Concentration
Collected	Name	Sample ID	PAM #	(lpm)	Sampled	Yolume (mi)	Date	(30 min)	(30 min)	CPM	(uCl/mi)
3/24/03 Je	erry Krane	PAM2211	006-234	2.5	551	1377500	3/25/03	32	12	0,87	1.225-13
3/24/03 O	deti Morgan	PAM2212	002-574	2.5	552	1380000	3/25/03	27	12	0.50	9.14E-14
3/24/03 Lit	ndsay Aschim	PAM2213	002-768	2,5	550	1375000	3/25/03	40	12	0.93	1,71E-13
3/25/03 Lir	ndsay Asohim	PAM2214	008-234	2.5	403	1007500	3/20/03	18	13	0.17	4.17把-14
3/25/03 Or	dell Morgan	PAM2215	002-766	2.5	515	1267500	2/36/03	12	`	0.00	0.00(2+00
3/25/30 Th	m O'Eden	PAM2216	002-574	2,5	516	1290000	3/26/03	. 13	13	0,00	0. <b>0015+0</b> 0
3/28/03 O	dell Morgan	PAM2217	002-674	2.5		1227500	3/27/03	14	11	0.10	2.06E-14
3/26/03 Lir	indsay Aschim	PAM2218	002-766	2.5	493	1232500	3/27/03	18	11	0.23	4.7 <b>8</b> E-14
3/26/03 Je	erry Krane	PAM2219	006-234	2.5	490	1225000	3/27/03	17	11	0.20	4,12E-14
3/27/03 Liv	ndsey Aschim	PAM2220	006-234	2.5	527	1317500	3/28/03	12	13	0.00	0.00度+00
3/27/03 Ti	im O'Brien	PAM2221	002-766	2,5	529	1322500	3/28/03	15	13	0.07	1.27E-14
3/27/03 At	mando Rulz	PAM2222	002-574	2.5	526	1315000	3/28/03	13	13	0.00	0.00E+00
3/26/03 Tr	im O'Brien	PAM2223	002-574	2.5	453	1157500	3/31/03	10	12	0.00	0.00E+0
3/2 <b>8/03</b> Lin	ndsay Asohim	PAM2224	000-234	2.5	463	1157500	3/91/03	12	12	0.00	0.00E+00
	defi Morgan	PAM2226	002-766	2,5	498	1240000	3/31/03	11	12	0.00	0.005+00

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information.

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# Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis) Lekeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 25

March 24, 2003 - March 28, 2003

				Lotel	eublo	eampte		day	after a	nalyala			fou	r day a	naiysiə		% of Limit
einple	date	atert	etop	time	(ti enin	volume	date	dices	blig	riet	Concentration		Showe.	pp.	Det	Concentration	4.00E-15
D i	sumpled	time	time	<b>BAIMPIA</b>	(CFM)	armiyand	Unelyzed	counts	COUNTS	(Abu)	in uCUmi	analyzad	-counts	counts	срп	in u/Ci/inf	11CMM
N2042	3/24/03	7:53em	3:36pm	462	35	1.60E+07	3/25/03	128	12	3,06667	8.70E-14	3/28/08	12	18	Ō	D. 00E+00	0.009
82042	3/24/03	7:47am	3: <b>30</b> pm	472	47	2,20E+07	3/25/03	103	12	3.03333	4.97E-14	3/28/03	12	13	0	0.00E+00	0,001
2042	3/24/08	7: <b>52e</b> m	3:3 <b>5</b> pm	463	45	2.08E+07	3/25/03	139	12	4.23383	7.90E-14	3/28/03	14	13	0.033	6.82E-16	14,559
W2042	3/24/08	7:56am	3:3 <del>9</del> pm	464	50	2.30E+07	3/25/03	148	12	4.63333	7.11E-14	3/28/03	15	13	0.067	1.06E-15	26,139
N2043	3/25/03	7:38em	2:01pm	363	37	1.40E+07	3/28/03	44	13	1,03333	2,65 <u>6</u> -14	3/31/03	14	12	0.087	1.71E-15	42,789
82043	3/25/03	7:42am	2:05pm	383	60	1.90E+07	3/26/03	. 74	13	1.03333	3. <b>67</b> E-14	3/31/03	11	12	0	0.00E+05	0.009
E2043	3/25/09	7:44em	2:07pm	383	30	1.14E+07	3/28/03	48	13	1.16667	3.69E-14	3/31/03	12	12	0	0.00E+00	0.00
W2043	3/26/03	7:40em	2:00pm	380	45	1.89E+07	3/26/03	54	18	1,36667	2.01E-14	3/31/03	15	12	0.1	2.13E-15	53.18
N2044	3/20/03	7:40am	3:18pm	458	41	1.86E+07	3/27/03	58	11	1,56667	3.03E-14	3/31/03	13	12	0.033	6.46E-16	16,149
82044	3/26/03	7:37am	3:15pm	458	42	1.01E+07	3/27/03	103	11	3.06667	5.0DE-14	3/31/03	16	12	0.1	1.69E-16	47.28
E2044	3/20/09	7:42am	3:20pm	458	40	1.82E+07	3/27/03	66	11	2.5	4.96E-14	3/31/03	10	12	. 0	6.00E+00	0,00
W2044	3/26/08	7:35em	3:15pm	460	44	2.01E+07	3/27/03	89	11	2.6	4.67E-14	3/31/03	12	12	0	0.00E+00	0.00
N2045	3/27/03	7;54am	3:07pm	433	35	1,50E+07	3/28/03	84	13	1.7	4.08E-14	4/1/03	10	12	0	0.D0E+00	0.00
82045		7:67am	3:10pm	433	42	1.80E+07	3/28/03	97	13	2.8	5.00E-14	4/1/09	11	12	0	0.00E+00	
E2045	3/27/03	7:50em	3:09pm	430	32	1,39E+07	3/28/03	66	13	1.76867	4.67E-14	4/1/03	14	12	0.007	1.73E-16	43,10
W2045	3/27/03	7:65am	3:11pm	438		1.60E+07	3/26/03	133	13	4	9.02E-14	4/1/03	12	12	0	0.00E+00	
N2046	3/28/03	7:86em	2:35pm	309	37	1.46E+07	3/31/03	14	12	0.08867	1. <b>64</b> E-15	4/2/03	11	11	Ð	0.00E+00	
<b>82</b> 046		8:04am	2:38pm	394	42	1,64E+07	3/31/03	18	12	0.2	4.40E-15	4/2/03	10	11	0	0.00E+00	
E2048		7:59am	2:95pm	396		1.61E+07				0.10667	3.73E-16	_					
W2040		8:01am	2:40pm	300		1.50E+07	•				_			11			

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Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)
Lakeshare East Project - 221 North Columbus Orive, Chicago, IL

Week 25 March 24 - March 28, 2003

•	••••Noin: Al	samo	les on th	is paye were	inalyzad after	4 days to a	How for the	dum devo	erter decev
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				Flow	Total	Total		dross	Bikg		dumple	3.01
Date			·	Rate	Time	Sample	Analysis	Counts	Counts	Net	Concentration	DAC
Collected	Name	Sample ID	PAM#	(ipm)	Sempled	Volume (mi)	Date	(30 min)	[39 mtn]	CPM	(uClimit)	
3/24/03 .	Jerry Krane	PAM2211	000-234	25	561	1877500	3/28/03	. 9	13	00.0	9.00E+00	42.00°A
3/24/03	Odell Morgan	PAM2212	002-574	2.5	552	1880000	3/26/03	11	13	<b>00.0</b>	0.00E+00	10.00%
3/24/03 (	Lindsay Asohim	PAM2213	002-766	2.5	550	1375000	3/26/03	14	13	6.03	8,12E-15	1,22%
3/25/03 1	Lindsay Asohim	PAM2214	006-234	2.5	403	1007500	3/31/03	11	12	00.0	9.00E+00	10,00%
3/26/03	Odell Morgan	PAM2217	002-574	2.5	491	1227500	3/31/03	10	12	0.00	0.00E+00	10.00%
3/26/03 1	Lindsay Aschim	PAM2218	002-766	2.5	493	1232500	3/31/03	12	12	00.0	0.00E+00	10,00%
3/26/03	Jany Krane	PAM2219	008-234	2.5	490	1225000	3/31/03	12	12	0.00	0.00E+00	10,00%
	Tim O'Brien	PAM2221	002-768	2.5	529	1322500	4/1/03	10	12	0.00	0.00E+00	0.00%

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCl/mi

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/mi

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# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL.

North Mor	<del>sitor</del>	Week #24 3/17/03-2/2		(High Yellane)
	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)		Sample Min / Day	Contraents
3/17/03	Ç	0.00€+00	0.00E+00	No Area Air Monitoring This Week
3/18/03	٥	0. <b>00E+0</b> 0	0,00E+00	
3/19/03		0.00E+00	0.00€+00	
3/20/03		0.005+00	0.00E+00	
3/21/03		0.00E+00	0.00€+00	
		D 00E+00		

**Time Weighted Weekly**  $C_{op} = \sum_{i} T_{i} C_{i}$ #DIV/01 uCl/ml Efficient Concentration (North) = ΣT. Percentage of Release Limit of = MOIV/O! En AS MUREG 1400 4E-15uClimi

South Market

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCl/ml	Sample Min / Day	Comments
3/17/03	0	0.00E+00	0.00€+00	No Area Air Monitoring This Week
3/18/03	0	₽.00€+00	0.00€+00	
3/19/03	0	D.00E+00	0.00E+00	
3/20/03	0	0.00E+00	0.00E+00	
3/21/03	O	0.00E+00	0.00E+00	
<del></del>	0	0.00€+00	0.005+00	

**Time Weighted Weekly**  $C_{max} = \sum_{i} T_{i,i} C_{i,i}$ ΣT. Effluent Concentration (South) = #DIV/RI ucl/mi Eq A.9 NUREG 1400 Percentage of Release Limit of # **EDIVID** 4E-15uCi/mi

East Monitor

	Time Sampled	Effluent Concentration	Concentration x	
	(minutes)	in uClimi	Sample Min / Day	Comments
3/17/03	-	0.00E+00	0.00E+00	No Area Air Monitoring This Week
3/18/03	O O	0.00E+00	0.DOE+00	•
3/19/03	0	0.00E+00	0.00E+00	
3/20/03	0	0.00E+00	0.00E+00	
3/21/03	. 0	0.00E+00	0,00€+00	
	Ö	0.00E400	A DOEADO	

Cam = E. Tal Ca Time Weighted Weekly Effluent Concentration (East) = ΣT. PDIVION UCUMI Percentage of Release Limit of = Eq A.O MUREG 1400 SOIV/O 4E-18uCilm

West Man				
<u> </u>	Time Sampled	Effluent Concentration	Concentration x	
Date	(Mirn.1885)	in uci/mi	Sample Min / Day	Comments
3/17/03	0	0.00€+00	0.00E+00	No Area Air Monitoring This Week
3/18/03	0	0.00€+00	0.00€+00	_
2/19/03	0	Ø. <b>00€+</b> 00	0.00 <del>E+</del> 00	
3/20/03	•	0.00€+00	Q.DQE+00	
3/21/03	0	0.005+00	0.00E+00	
		0.005+00	0.000	

Come = E. Ya. Ca	Time Weighted Weekly	
ΣT <sub>c</sub>	Effuent Concentration (West) =	#ENV/01 uCi/mi
59 A.O NUREG 1400	Percentage of Relaces Limit of *	#DIV/O

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Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Dally Analysis)
Lekeshore East Project - 221 North Columbus Drive, Chicago, IL

	·		1	Itale	authia	<b>temple</b>	ch 21, 2		After on	ahels			701	ir day a	natvole	)	% of Limit
Semple	dete	<b>ut</b> art	atto	\$me	fit min	tolume	date	9'000	tete	net	Concentration	deta	gross	tika	net	Concentration	4.00E-15
0	netripled	time	time	sampled	T 1	erich/zac	emalyaed	_	counts	орт	in saCl/mil	<b>Oneland</b>	•		<b>apr</b> in	in william	uClint
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No A	ea Air	<b>Mo</b> nito	ring <b>Th</b>	iis We	ek												
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MAR-27-2003

Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)
Leteshore East Project - 221 North Columbus Drive, Chicago, IL

Week 24 March 17 - March 21, 2803

			Flow	Total	Total		Gross	Bkg		Sample
Date		ļ	Rete	Time	Semple	Analysis	Counts	Counts	Net	Concentration
Collected Name	Sample ID	PAM #	(ipm)	Sampled:	Volume (mi)	Date	(aum DE)	(34 min)	CPM	(HCMml)
3/17/03 Linday Aschim	PAM2201	002-166	2.5	425	1082500	3/10/03	-18	10	9.27	6,33E-14
3/17/03 Tirx O'Brien	PAM2202	002-574	2.5	485	1212500	3/18/08	18	10	0.20	4.10E-14
3/18/03 Jerry Krane	PAM2203	002-374	2.5	525	1312500	3/19/03	12	13	9.00	0.00E+00
3/18/03 Tim O'Brien	PAM2204	002-760	2,5	520	1300000	3/19/03	13	13	0.00	0.00E+00
3/19/03 Jerry Krane	PAN(2205	002-574	2.5	498	1245000	3/20/03	10	10	0.00	0.00E+00
S/19/03 Lindsay Aschirt	PAM2206	002-766	2.5	498	1240000	3/20/83	12	10	0. <b>0</b> 7	1.38E-14
3/20/03 Tim O'Brien	PAM2207	002-574	2.5	485	1212500	3/21/03	13	13	0.00	0.00E+00
3/20/03 Lindsay Aachin	PAM2208	002-766	2.5	210	525000	3/21/03	11	13	0.00	0.00€+00
3/21/03 Tim O'Brien	PAM2209	002-574	2.5	500	1250000	3/24/83	11	11	0.03	0.09E+00
3/21/03 Jerry Krane	PAM2210	006-234	2.5	503	1257500	3/24/03	9	11	0.00	0.09E+00

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information. 8

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Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)
Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 24 March 17 - March 21, 2003

				Flow	Total	Tota)		Gross	Big		Bample	% of
Date		l .		Rate	Time	Sample	Analysia	Counts	Counts	Net	Concentration	DAC
Collected	Neme	Sample ID	PAM #	(lpm)	Bempled	Volume (ml)	Date	(30 min)	(19 min)	CPM	(eCVm1)	
3/17/03	Lindsey Aschim	PAM2201	002-766	2.5	425	1062500	3/21/03	9	13	0.00	0.00E+00	0.009
3/17/03	Tim O'Brien	PAM2202	002-574	2.5	485	1212500	3/21/03	12	13	0.00	0.00E+00	0.00%
3/19/03	Lindsay Aschim	PAM2208	002-758	2.5	498	1240000	3/24/03	10	<b>11</b>	0.00	0.00E+00	0.009

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCitml

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/ml

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

North Mor	ultorvotte	Week #23 3/10/03-3/1	4/03	(High Volume)
	Time Sampled	Effluent Concentration	Concontration x	
Date	(minutes)	In uCl/mi	Sample Min / Day	Comments
3/10/03	0	0.00E+00	0.00E+00	No Area Air Monitoring This Week
3/11/03	0	0.00E+00	0.00€+00	
3/12/03	0	0.00=+00	0.00E+00	
3/13/03	0	0.00E+00	0.00E+00	
3/14/03	0	0.00E+00	_0,00 <del>E+</del> 00	
	Q	0.00E+00	0,005+00	

C<sub>we</sub> = <u>\( \text{T\_{e,l}} \text{C} \)
\( \text{Time Weighted Weekly} \)
\( \text{Effluent Concentration (North)} = \( \text{#DIV/O!} \)
\( \text{Effluent Concentration (North)} = \( \text{#DIV/O!} \)
\( \text{#DIV/O!} \)
\( 4E-15\( \text{CVmi} \)</u>

South Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Debte	(minutes)	In uCl/mi	Sample Min / Day	Comments
3/10/03	D	0.00E+00	0,00E+00	No Ares Air Monitoring This Week
3/11/03	0	D.00E+00	0.00E+00	
3/12/03	0	0,00€+00	0.00€+00	
3/13/03	0	0,00€+00	0.00 <del>E+0</del> 0	
3/14/03	0	0.00€+00	0.00E+00	
	٥	0.00F+00	0.00E+00	<u></u>

C<sub>mb</sub> =  $\sum T_{A,L}C_{I}$ Time Weighted Weakly

Effluent Concentration (South) = #DIV/0! uCi/ml

Eq A.9 NUREG 1400 Percentage of Release Limit of = #DIV/0!

4E-15uCi/ml

**East Monitor** 

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uci/mi	Sample Min / Day	Comments
3/10/03	Ó	0.00E+00	0.00E+00	No Area Air Monitoring This Week
3/11/03	o o	D.00E+00	0.00E+00	
3/12/03	0	0.00E+00	0.00E+00	
3/13/03	0	0.00E+00	0.00€+00	
3/14/03	0	0.00E+ <u>00</u>	0.00E+00	
	0	0.00E+00	0.00E+00	

C<sub>mg</sub> = \( \subseteq \tau\_{\text{L}} \)
\( \text{Time Weighted Weekly} \)
\( \text{Effuent Concentration (East)} = \text{#OfV/0! uGi/ml} \)
\( \text{Eq A.9 NUREG 1400} \)
\( \text{Porcentage of Release Limit of} = \text{#OfV/0!} \)
\( 4E-15uCVm/ \)

West Monitor

	Time Sempled	Effluent Concentration	Concentration x	
Dete	(minutes)	In uCVml	Sample Min / Day	Comments
3/10/03	0	0.00E+00	0.00E+00	No Area Air Monitoring This Week
3/11/03	0	0.006+00	Ø.00 <b>E+0</b> 0	
3/12/03	0	0.006+00	0.006+00	
3/13/03	0	0.006+00	0.00€+00	
3/14/03	0	0.00E+00	0.00E+00	
	0	0.00E+00	0.00E+00	

EO AD NUREG 1400

Time Weighted Weekly

Effluent Concentration (West) = #DIV/81 wCl/ml

Percentage of Release 1 introf is #DIV/81

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Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis)
Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Wask	23			March	10, 20	03 - Mai	rch 14, 2	003									
			T	Milel	oubic	estrible		day	efter a	alysis			for	it day a	nalyek		% of Limit
emple	dete	ghari	atob	time	(D) emiles	volume	Cal a	gross	bleg	net	Concentration		\$1000	blog	net	Concentration	4.00E-1
2	estripled	time	lime	ertubled	(CFM)	snelyzed	snelyzed	counts	counts	cbu	in uClimi	arulyzed	ecuris	counts	<b>¢pñ</b> i	in ucumi	ucumi
1. A.	41.	4.8 m 14 m	ain n Th	da 141a	-1.		ĺ										
IA OF	ea Air	MONAC	oring Th	us we	ek		ļ										ţ
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Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)

Week 23 March 10 - March 14, 2003

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\*Note: All samples on this page were analyzed after 4 days to allow for thorium daughter decay

Date Collected		Sample ID		Flow Rate (Ipm)	Total Time Sampled	Total Sample Votume (mi)	Analysis Date	Gross Counts (30 min)	Bkg Counts (30 min)		Sample Concentration (uCVml)	% of DAC
3/10/03	Lindsey Aschim	PAM2191	002-766	2.5	525	1312500	3/14/03	12	12	0.00	0.00E+00	0.00%
3/10/03	Jerry Krane	PAM2192	002-574	2.5	521	1302500	3/14/03	10	12	0.00	0.QQE+00	0.009
3/1 1/03	Jerry Krane	PAM2193	002-574	2.5	508	1270000	3/17/03	12	12	0.00	0.00E+00	0.009
3/11/03	Tim O'Brien	PAM2194	006-234	2.5	516	1290000	3/17/03	11	12	0,00	D.00E+00	0.009

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCl/ml

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/ml

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Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)

Week 23 March 10 - Merch 14, 2003

Lake shore East Project - 221 North Columbus Drive, Chicago, IL

\*\*\* All PAM's with elevated counts on day after analysis are recounted after 4 days (see attached)

Date			}	Flow Rete	Total Time	Totul Sample	Analysis	Gross Counts	Bkg Counts	Net	Sample Concentration
Collected	Neme	Sample ID	PAM #	(ipm)	Sempled	Yolume (mi)	Dete	(30 min)	(30 min)	CPM	(LCNM)
3/10/03 (	Indsay Aschim	PAM2101	002-766	2.5	525	1312500	3/11/03	18	12	0.20	3.85E-14
3/10/03 .	lerry Krane	PAM2192	002-574	2.5	521	1302500	3/11/03	20	12	0.27	5.17E-14
3/11/03 .	ierry Krane	PAM2193	002-574	2.5	508	1270000	3/12/03	18	12	0.20	3.97E-14
3/11/03	Tim O'Srien	PAM2104	006-234	2.5	518	1290000	3/12/03	17	12	0.17	3.26E-14
3/12/03 .	Jerry Krane	PAM2185	006-234	2.5	516	1290000	\$/13/03	11	13	0.00	0.005+00
3/12/03	Undery Aschim	PAM2106	902-574	2.5	513	1202500	3/13/03	13	13	0.00	0.00E+D0
3/13/03	Tim O'Srien	PAM2197	006-234	2.5	492	1230000	3/14/03	9	12	0.00	0.006+00
3/13/03	Lindsey Aschim	PAM2198	002-766	2.5	497	1242500	8/14/03	12	12	0.00	0.00E+00
3/14/03	Tim Q'Brien	PAM2189	006-234	2.5	458	1140000	3/17/03	9	12	0.00	0.00E+00
3/14/03	Jerry Krane	PAM2200	002-768	2.5	460	1150000	3/17/03	11	12	0.00	0.00E+0

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information.

# Area Air Monitoring Summary Sheet - Weekly Effluent Concentration Report

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

North Mor	nitor	Week #22 3/3/03-3/7/	03	<u>(High Volume)</u>			
Date		Effluent Concentration in uCi/ml	Concentration x Sample Min / Day	Comments			
3/3/03		0.00€+00					
3/4/30	203						
3/5/03	O	0.00E+00	0.00E+00				
3/6/03	0	0.00E+00					
3/7/03	0	0.00 <del>E+</del> 00	0.00E+00				
	203	1.49E-15	3.02F-13				

 $C_{exp} = \frac{\sum T_{e,i} C_i}{\sum T_e}$ 

Time Weighted Weekly
Effluent Concentration (North) = 1.49E-15 uCi/ml

Eq A.9 NUREG 1400

Percentage of Release Limit of = 37.25% 4E-15uCl/ml

South Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCl/mi	Sample Min / Day	Comments
3/3/03	0	0.00€+00	0,00 <b>€+0</b> 0	
3/4/03	234	0.00€+00	0.00E+00	
3/5/03	0	0.00E+00	Q,00E+00	
3/6/03	0	0.00€+00	0.00€+00	
3/7/03	0	0.00E+00	0.00E+00	
	234	0.00€+00		

C<sub>mg</sub> = <u>Σ T<sub>+1</sub> C</u> Σ T<sub>+</sub> Time Weighted Weekly

Effluent Concentration (South) = 0.005+00 uCi/ml

Perventage of Release Limit of = 0.00%

Eq A.9 NUREG 1400

4E-15uCi/ml

East Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date			Sample Min / Day	Comments
3/3/03	0	0.00E+00	0.00E+00	
3/4/03	201	0.00E+00	0,00E+00	
3/5/03	i o	0.00E+00	0.00E+00	
3/8/03	٥	0.00E+00	0.00E+00	
3/7/03	_	0.00E+00	0.00E+00	
	201	0.00=+00	0.00€+00	

 $C_{exp} = \underline{\Sigma} \, \underline{T}_{e,L} \, \underline{C}_{e}$  $\Sigma \, \underline{T}_{e}$ 

Eq A.9 NUREG 1400

Time Weighted Weekly

Effluent Concentration (East) = 0.00E+09 uCi/ml

Percentage of Release Limit of = 0.00%

4E-15uCVml

West Monitor

	Time Sampled	Effluent Concentration	Concentration x	
Date	(minutes)	in uCi/mi	Sample Min / Day	Comments
3/3/03	0	0.00E+00	0.00€+00	
3/4/03	229	0.00E+00	0.00E+00	
3/5/03	0	0.00E+00	0.00E+00	
3/6/03	0	0.00E+00	0.00E+00	
3/7/03		0.00E+00		
	229	0.00E+00	0.00E+00	

Eq A.8 NUREG 1400

Time Walghted Waskly	
Effluent Concentration (West) =	6.00 <u>6</u> +00 uCi/ml
Percentage of Release Limit of =	0.00%

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Area Air Monitoring Summary Sheet - Staplex High Volume Pumps (Daily Analysis)
Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 22

March 3, 2003 - March 7, 2003

AAOOK .	##			MAIPH	3, 20	13 - Marc	11 1 , 200	<u>.                                    </u>									
				lotel	cubic	semple		de	after e	nalyala			fou	ır day a	nelysic		% of Limit
Bampia -	cialité .	steri	etop	time	fti enin	veturne	dete	gross	tikg	net	Concentration	date	gross	bleg	net	Concentration	4.00E-15
1D	sampled	time	time	pempled	(CFM)	enalyzed	emalyzed	counts	COUNTS	<b>cp</b> m	in uclimi	analyzed	counts	pounts	CD/m	in uciónsi	ucumi
N2041	3/4/03	8:16am	11:30am	203	40	8.05E+08	3/6/03	18	11	0.23333	1.05E-14	3/10/03	14	13	0.033	1.49E-15	37.33%
82041	3/4/03	7:51 <b>a</b> m	11:45 <b>e</b> m	234	42	9.74E+06	3/6/03	14	11	0.1	3.70E-15	3/10/03	11	13	0	0.00E+00	
E2041	3/4/03	8:20am	11:41em	201	36	7.57E+06	3/6/03	18	11	0.16667	7.94E-15	3/10/03	13	13	3	0.00E+00	0.00%
W2041	9/4/03	7:53em	11:42em	229	47	1.07E+07	3/6/03	21	11	0.33333	1.13E-14	3/10/03	13	13	0	0.00E+00	0.00%
											!						
when the and lead	kium cont jed. Day at	aminated Nor enalys	ily day duri material w ils was not day (no w	performe	ited d	АН											

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Personal Air Monitoring Summary Sheet (PAM's -Daily Analysis)

Lakeshore East Project - 221 North Columbus Drive, Chicago, IL.

Week 22 March 3 - March 7, 2003

·			AB PA	Mis with (	elevated co	unts on day aft	er analysis	are recount	ed after 4 c	iays (sao atti	icheo)
				Flow	Total	Total		Gross	Bkg		Sample
Date	 	•	}	Rete	Time	Sample	Analysis	Counts	Counts	Net	Concentration
Collected	Name	Sample ID	PAM#	(Ipm)	Sampled	Volume (mi)	Date	(30 min)	(30 min)	CPM_	(uCi/mi)
3/3/03	Lindsay Aschim	PAM2182	006-234	2.5	511	1277500	3/4/03	10	12	0.00	0.00E+00
3/3/03	Tim O'Brien	PAM2183	002-766	2.5	511	1277500	3/4/03	12	12	00.0	0.00E+00
3/4/03	Odeli Morgan	PAM2184	002-574	2.5	195	487500	3/6/03	10	11	0.00	0.00E+00
3/4/03	Lindsay Aschim	PAM2185	006-234	2,5	178	445000	3/6/03	11	11	00,0	0.00E+00
3/4/03	Jerry Krane	PAM2188	B02-766	2.5	473	1182500	3/8/03	14	11	0.10	2,13E-14*
No Work on	3/5/03 - Snow D	ay									
3/6/03	Tim O'Brien	PAM2187	002-574	2.5	507	1267500	3/7/03	16	10	0.20	3.98E-14
3/6/03	Jerry Krane	PAM2188	002-766	2,5	<b>49</b> 8	1245000	3/7/03	17	10	0.23	4,73E-14*
3/7/03	Jeny Krane	PAM2189	002-766	2.5	495	1237500	3/10/03	12	13	5,00	0.00E+00]
3/7/03	Lindsay Aschim	PAM2190	002-574	2.5	495	1237500	3/10/03	16	13	0.10	2.04E-14*

Note: Official airborne Th-232 concentrations are obtained from 4 Day Analysis. See attached 4 Day Analysis Form for Occupational Dose Limit Information.

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Personal Air Monitoring Summary Sheet (PAM's -4 Day Analysis)
Lakeshore East Project - 221 North Columbus Drive, Chicago, IL

Week 22 March 3 - March 7, 2003

\*\*\*Note: All samples on this page were analyzed after 4 days to allow for thorium daughter decay

				Flow	Total	Total		Gross	Bkg		Sample	% of
Date		}	]	Rate	Time	8ample	Analysis	Counts	Counts	Net	Concentration	DAC
Collected	Name	Sample ID	PAM#	(lpm)	Sampled	Volume (ml)	Date	(30 min)	(30 mln)	CPM	(uCi/ml)	
3/4/03	Jerry Krane	PAM2186	002-786	2.5	473	1182500	3/10/03	10	13	0.00	0.00E+00	0.00%
3/8/03	Tim O'Brien	PAM2187	002-574	2.5	507	1267500	3/11/03	11	12	0.00	0.00E+00	0.00%
3/8/03	Jerry Krane	PAM2188	002-766	2,5	498	1245000	3/11/03	- 11	12	0.00	0.00E+00	0.00%
3/7/03	Lindsay Aschim	PAM2190	002-766	2.5	495	1237500	3/12/03	11	12	0.00	0.00E+00	0.00%

Occupational Dose Limit for Occupational Radiation Exposure = 5 rem Total Effective Dose Equivalent

2000 DAC-Hours = 5 rem

DAC (Derived Air Concentration) for Th-232 = 5E-13uCi/ml

Administrative Site Limit for Occupational Exposure = 30% Th-232 DAC = 1.5E-13 uCi/ml

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STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061-3153 voice 847-279-2500 fax 847-279-2510 web www.stsconsultants.com

March 12, 2003

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for February 2003, 221 N. Columbus Drive, Chicago, Illinois – STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during February 2003 and activities planned or expected during March 2003.

### **PROGRESS DURING FEBRUARY 2003**

1. Grading phase (Phase III) gamma surveys were initiated in late December and continued in accordance with Section 5.7 of SOP-210. Table 1 summarizes the status of the lift surveys at the project site (refer to Figure 1 for the grid locations). Note that grids 6, 14, 23 and 32, along with the western portion of grids 15, 24 and 33, are not included within the current Lakeshore East Development parcel.

Table 1
Grading Phase Survey Status

Status as of February 28, 2003	Grid Locations		
Complete	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 34, 35, 36, 37, 38, 39, 40		
In Progress	7, 33		
Remaining	15, 24		

- 2. The USEPA was notified in a STS letter dated February 4, 2002, that radiologically-impacted soil just slightly above the cleanup threshold extended beyond the property line in the southeast corner of grid 29 in the vicinity of North Harbor Drive.
- 3. Grading phase gamma surveys of the historical fill observed elevated gamma readings in an isolated area of grid 7 the week of February 3, 2003. The area was designated an exclusion zone and will be excavated in early March.
- 4. Construction of an access ramp from Lakeshore Drive was initiated on Friday February 7 in the grid 31 area of the southern slip. Excavation activities within the slip were monitored during the construction phase for the presence of radiologically-impacted material. No elevated gamma readings were observed during the survey activities.

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC March 12, 2003 Page 3

- 5. The USEPA issued a letter dated February 11, 2003, confirming that the remediation of known radiologically-impacted materials was complete in the southern slip (Slip E).
- 6. Verification surveys were completed by the USEPA in four areas. The grid in which the area is located and the date the notice of successful verification was signed by the USEPA are provided in Table 2. Please note that each grid is subdivided into four quadrants. For notation purposes, the quadrants are denoted with letters starting with the northwest corner and proceeding in a clockwise direction (i.e., 10A, 10B, 10C and 10D).

Table 2
Notice of Successful Verification

House of Gascossial Vermoalist				
Survey Grid Designation	USEPA Signature Date			
10B-11A East	2/12/2003			
10B-11A West	2/7/2003			
10A	2/7/2003			
29C	2/7/2003			

- 7. Importing of fill soil from off-site was initiated the week of February 10. A composite sample collected on February 20 indicated a total radium result of 3.14 pCi/g. This value is below the total radium criteria of 3.7 pCi/g established for imported fill by the USEPA (see the weekly report dated February 24, 2003 for a copy of the results). In accordance with Work Plan the fill soils from each borrow source will be tested at least once per 10,000 cubic yards.
- 8. People's Gas excavated several test pits to locate a gas line within the former northern slip (grid 9) during the week of February 24, 2003. Excavation activities were monitored for the presence of radiologically-impacted material. No elevated gamma readings were observed.
- 9. No radiologically-impacted materials were excavated during February. Table 3 below summarizes the quantity of radiologically-impacted material excavated for the project.

Table 3
Impacted Soil Loading Summary

Containers Loaded	Cumulative		
February, 2003	Project Total		
0	176		

10. In accordance with the approval issued by the USEPA on December 13, 2002, area air monitoring was to be conducted during the excavation or handling of radiologically-impacted soils. Since no excavation was conducted, only personal air monitoring was performed. No exceedances of the allowable limits have been observed (refer to weekly reports for analytical data).

### **PLANNED ACTIVITIES FOR MARCH 2003**

- 1. The isolated area of radiologically-impacted material within grid 7 will be excavated. The USEPA will be requested to survey the area and sign-off that the area has successfully remediated.
- 2. Grading phase (lift) gamma surveys of historical fill will continue. It is anticipated that the lift surveys (Phase III) will be completed early in March. A letter will be submitted to the USEPA indicating the completion of the Phase II (remediation of identified radiologically-impacted materials) and Phase III (lift surveys of historic fill) activities. The letter will also request that the USEPA to authorize the

U.S. Environmental Protection Agency STS Project No. 1-32193-XC March 12, 2003 Page 3

initiation of the closure report activities. It is understood that the closure report is due within 60 days of USEPA notice that all fieldwork is complete.

- 3. Gamma surveys will be conducted during infrastructure and construction related activities within the former slip areas. The areas will be surveyed for elevated gamma radiation as the activities proceed. The USEPA will be notified upon discovery of radiologically-impacted material within the former slips. Excavation activities will take place as necessary to remediate any radiologically-impacted soil discovered during the infrastructure/construction related activities. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 4. In accordance with the approval issued by the USEPA on December 13, 2002, area air monitoring will only be conducted at the site during excavation or handling of radiologically-impacted soils. Personal air monitoring will be performed during excavation activities or test pit investigations conducted within the former slip areas.
- 5. Authorization from the USEPA will be sought to discontinue the issuance of weekly reports for the Lakeshore East project once the Phase II and Phase III related field activities are complete. Monthly reports will continue to be submitted to the USEPA until submittal of the closure report.
- 6. In accordance with Work Plan the fill soils imported to the site will be tested for total radium at least once per 10,000 cubic yards for each borrow source.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

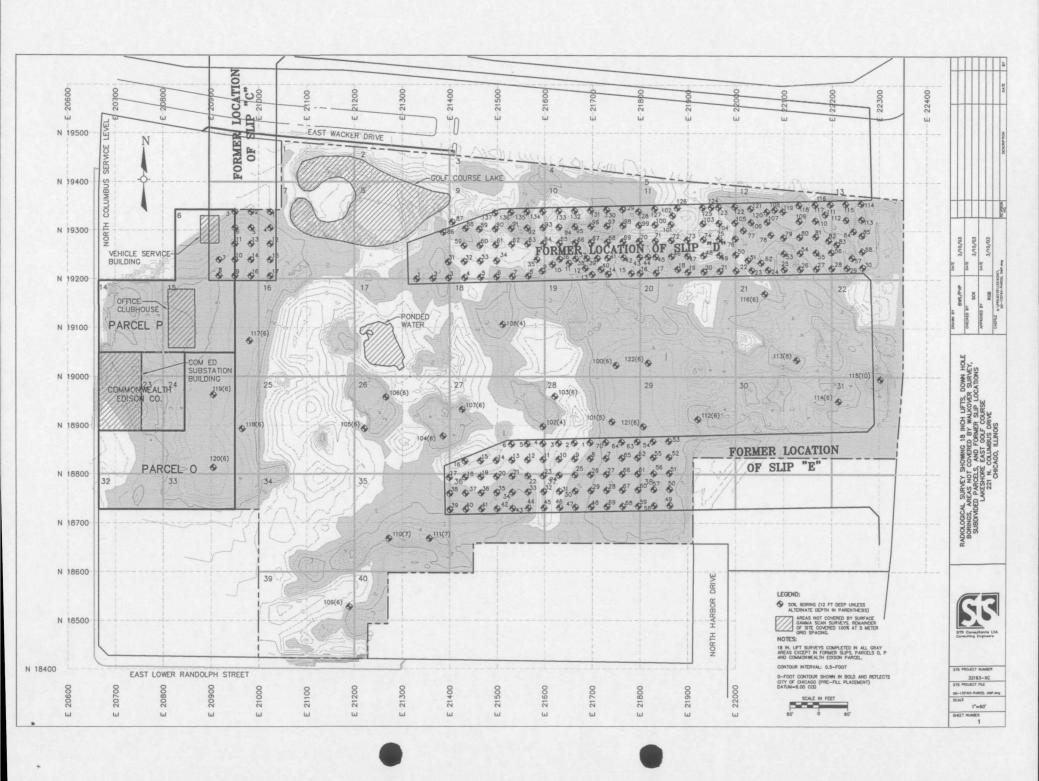
Steven C. Kornder, Ph.D. Senior Project Geochemist

**Attachments** 

cc: Kara Hughes, Lakeshore East, LLC

Sean Bezark, Altheimer & Gray

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC





voice 847-279-2500 847-279-2510 www.stsconsultants.com



February 13, 2003

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Progress Report for January 2003, 221 N. Columbus Drive, Chicago, Illinois – STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during January 2003 and activities planned or expected during February 2003.

### **PROGRESS DURING JANUARY 2003**

1. Grading phase (Phase III) gamma surveys were initiated in late December 2002 and continued in accordance with Section 5.7 of SOP-210. Table 1 summarizes the status of the lift surveys at the project site (refer to Figure 1 for the grid locations).

**Grading Phase Survey Status** 

Status	Grid Locations			
Complete	1, 2, 5, 13, 16, 17, 22, 25, 26, 27, 28, 29, 30, 31, 34, 35, 37, 38, 39, 40			
In Progress	4, 10, 11, 12, 21, 36			
Remaining	3, 7, 8, 9, 15, 18, 19, 20, 24, 33			

- 2. In late December test pits were excavated to locate existing utilities and proposed caissons. The excavations were surveyed as the excavations proceeded. Elevated gamma readings were measured at several proposed caisson locations (R-16, R-20, 6-1, S-9 and S-11) located within the southern slip (Slip E) in grid location 36 (refer to Figure 1). The excavation of this radiologicallyimpacted soil was completed the week of January 13, 2003 and a notice of successful verification was signed by the USEPA on January 29, 2003.
- 3. During the week of January 6, 2003 test pits were excavated for People's Energy to locate utilities in grid 9. The excavations were surveyed for elevated gamma radiation as the excavations proceeded. No elevated gamma readings were measured during the test pit operations.
- 4. Trenching conducted during the week of January 13, 2003 discovered an isolated area of elevated gamma readings in Slip E (eastern edge of the southeast corner of grid 29). Soil was excavated from the area during the weeks of January 20 and 27, 2003. The excavation activities indicated that the radiologically-impacted material just slightly above the cleanup criteria extended beyond the property boundary.

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC February 13, 2003 Page 3

- Elevated gamma readings were observed during lift surveys conducted in grids 10 and 11 just north
  of the north slip (Slip D) the week of January 20, 2003. Soil excavation was initiated during the week
  of January 27, 2003.
- 6. The USEPA completed a verification survey and a notice of successful verification was signed by the USEPA on January 29, 2003 for the southwest corner of grid 28 (E–F.5, 13–19).
- 7. A response was received from the USEPA on January 7, 2003, regarding the casing survey (STS, November 6, 2002) conducted below the watertable for the borings installed in Slip E (southwest corner of grid 28). STS issued a response dated January 10, 2003 which concluded that review of the information in the USEPA correspondence and revision of one of the factors used in the evaluation indicated that no exceedances were detected. On January 30, 2003, correspondence from the USEPA was received agreeing with STS's interpretation of the data that no exceedances were detected.
- 8. In accordance with the approval issued by the USEPA on December 13, 2002, area air monitoring was conducted during the excavation or handling of radiologically-impacted soils. Personal air monitoring was performed during excavation and soil handling activities, grading surveys and exploration activities within the former slip areas. No exceedances of the allowable limits have been observed (refer to weekly reports for analytical data).
- 9. Table 2 below summarizes the quantity of radiologically-impacted material excavated during January as well as the cumulative total for the project.

Table 2 Impacted Soil Loading Summary

Containers Loaded	Cumulative		
January, 2003	Project Total		
191/4	176		

### **PLANNED ACTIVITIES FOR FEBRUARY 2003**

- 1. Grading phase (lift) gamma surveys of historical fill will continue to be conducted at the site.
- Gamma surveys will be conducted during infrastructure and construction related activities within the former slip areas. The areas will be surveyed for elevated gamma radiation as the activities proceed.
- 3. Excavation activities will take place as necessary to remediate any radiologically-impacted soil discovered during the grading phase lift surveys or the infrastructure/construction related activities. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 4. The USEPA will be notified that radiologically-impacted material extends beyond the property boundary in the southeast corner of grid 29 in the vicinity of North Harbor Drive.
- 5. Remediation of radiologically-impacted materials will be completed in the exclusion zones setup in grids 10 and 11. When complete, the USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 6. In accordance with the approval issued by the USEPA on December 13, 2002, area air monitoring will only be conducted at the site during excavation or handling of radiologically-impacted soils.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC February 13, 2003 Page 3

Personal air monitoring will continue to be performed during excavation activities as well as during grading and test pit investigations.

7. STS will provide clarification to the USEPA regarding the sign-off requested for the borehole investigation area in grid 28 of the southern slip (refer to item 7 in the Work Completed section).

Preparation of the Site Closure Report will begin following completion of the removal of radiologically-impacted materials requiring excavation and the grading survey activities (Phase III). It is understood that the closure report is due within 60 days of notice that all fieldwork is complete.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

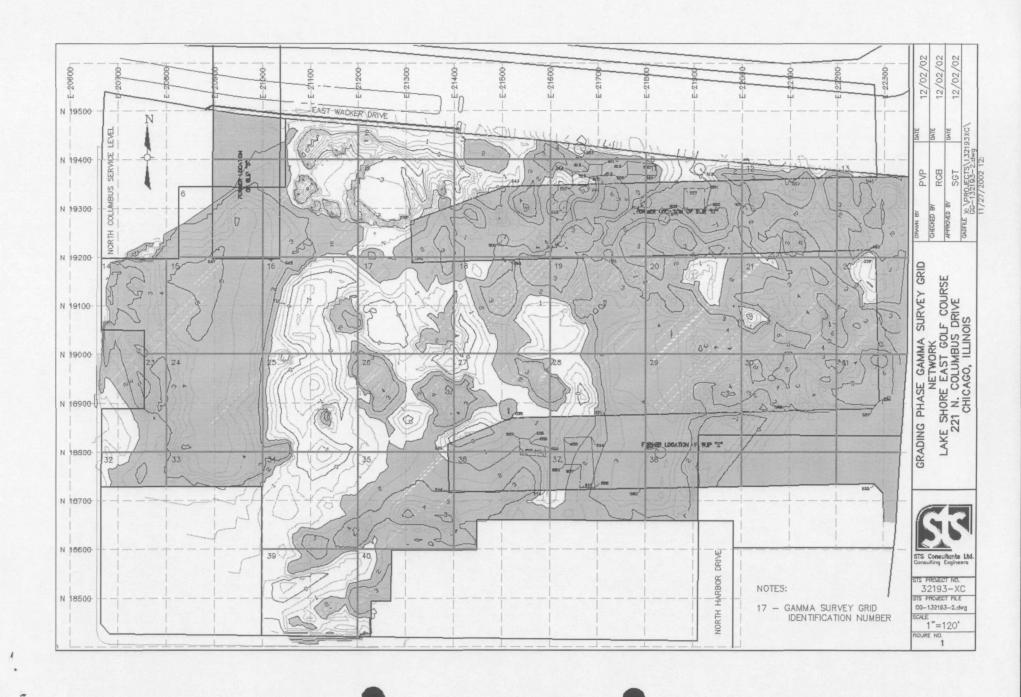
Steven C. Kornder, Ph.D. Senior Project Geochemist

Attachments

cc: Kara Hughes, Lakeshore East, LLC

Sean Bezark, Altheimer & Gray

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC





STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061-3153 voice 847-279-2500 fax 847-279-2510 web www.stsconsultants.com

March 12, 2003

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE:

Monthly Progress Report for February 2003, 221 N. Columbus Drive, Chicago, Illinois – STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during February 2003 and activities planned or expected during March 2003.

#### **PROGRESS DURING FEBRUARY 2003**

 Grading phase (Phase III) gamma surveys were initiated in late December and continued in accordance with Section 5.7 of SOP-210. Table 1 summarizes the status of the lift surveys at the project site (refer to Figure 1 for the grid locations). Note that grids 6, 14, 23 and 32, along with the western portion of grids 15, 24 and 33, are not included within the current Lakeshore East Development parcel.

Table 1
Grading Phase Survey Status

Status as of February 28, 2003	Grid Locations
Complete	1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 34, 35, 36, 37, 38, 39, 40
In Progress	7, 33
Remaining	15, 24

- 2. The USEPA was notified in a STS letter dated February 4, 2002, that radiologically-impacted soil just slightly above the cleanup threshold extended beyond the property line in the southeast corner of grid 29 in the vicinity of North Harbor Drive.
- 3. Grading phase gamma surveys of the historical fill observed elevated gamma readings in an isolated area of grid 7 the week of February 3, 2003. The area was designated an exclusion zone and will be excavated in early March.
- 4. Construction of an access ramp from Lakeshore Drive was initiated on Friday February 7 in the grid 31 area of the southern slip. Excavation activities within the slip were monitored during the construction phase for the presence of radiologically-impacted material. No elevated gamma readings were observed during the survey activities.

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC March 12, 2003 Page 3

- 5. The USEPA issued a letter dated February 11, 2003, confirming that the remediation of known radiologically-impacted materials was complete in the southern slip (Slip E).
- 6. Verification surveys were completed by the USEPA in four areas. The grid in which the area is located and the date the notice of successful verification was signed by the USEPA are provided in Table 2. Please note that each grid is subdivided into four quadrants. For notation purposes, the quadrants are denoted with letters starting with the northwest corner and proceeding in a clockwise direction (i.e., 10A, 10B, 10C and 10D).

Table 2
Notice of Successful Verification

itotico di Gadoccolai Tollificationi						
Survey Grid Designation	USEPA Signature Date					
10B-11A East	2/12/2003					
10B-11A West	2/7/2003					
10A	2/7/2003					
29C	2/7/2003					

- 7. Importing of fill soil from off-site was initiated the week of February 10. A composite sample collected on February 20 indicated a total radium result of 3.14 pCi/g. This value is below the total radium criteria of 3.7 pCi/g established for imported fill by the USEPA (see the weekly report dated February 24, 2003 for a copy of the results). In accordance with Work Plan the fill soils from each borrow source will be tested at least once per 10,000 cubic yards.
- 8. People's Gas excavated several test pits to locate a gas line within the former northern slip (grid 9) during the week of February 24, 2003. Excavation activities were monitored for the presence of radiologically-impacted material. No elevated gamma readings were observed.
- 9. No radiologically-impacted materials were excavated during February. Table 3 below summarizes the quantity of radiologically-impacted material excavated for the project.

Table 3 Impacted Soil Loading Summary

Containers Loaded	Cumulative
February, 2003	Project Total
0	176

10. In accordance with the approval issued by the USEPA on December 13, 2002, area air monitoring was to be conducted during the excavation or handling of radiologically-impacted soils. Since no excavation was conducted, only personal air monitoring was performed. No exceedances of the allowable limits have been observed (refer to weekly reports for analytical data).

#### **PLANNED ACTIVITIES FOR MARCH 2003**

- 1. The isolated area of radiologically-impacted material within grid 7 will be excavated. The USEPA will be requested to survey the area and sign-off that the area has successfully remediated.
- 2. Grading phase (lift) gamma surveys of historical fill will continue. It is anticipated that the lift surveys (Phase III) will be completed early in March. A letter will be submitted to the USEPA indicating the completion of the Phase II (remediation of identified radiologically-impacted materials) and Phase III (lift surveys of historic fill) activities. The letter will also request that the USEPA to authorize the

U.S. Environmental Protection Agency STS Project No. 1-32193-XC March 12, 2003 Page 3

initiation of the closure report activities. It is understood that the closure report is due within 60 days of USEPA notice that all fieldwork is complete.

- 3. Gamma surveys will be conducted during infrastructure and construction related activities within the former slip areas. The areas will be surveyed for elevated gamma radiation as the activities proceed. The USEPA will be notified upon discovery of radiologically-impacted material within the former slips. Excavation activities will take place as necessary to remediate any radiologically-impacted soil discovered during the infrastructure/construction related activities. The USEPA will be requested to conduct verification surveys and sign-off that the areas have been successfully remediated.
- 4. In accordance with the approval issued by the USEPA on December 13, 2002, area air monitoring will only be conducted at the site during excavation or handling of radiologically-impacted soils. Personal air monitoring will be performed during excavation activities or test pit investigations conducted within the former slip areas.
- 5. Authorization from the USEPA will be sought to discontinue the issuance of weekly reports for the Lakeshore East project once the Phase II and Phase III related field activities are complete. Monthly reports will continue to be submitted to the USEPA until submittal of the closure report.
- 6. In accordance with Work Plan the fill soils imported to the site will be tested for total radium at least once per 10,000 cubic yards for each borrow source.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

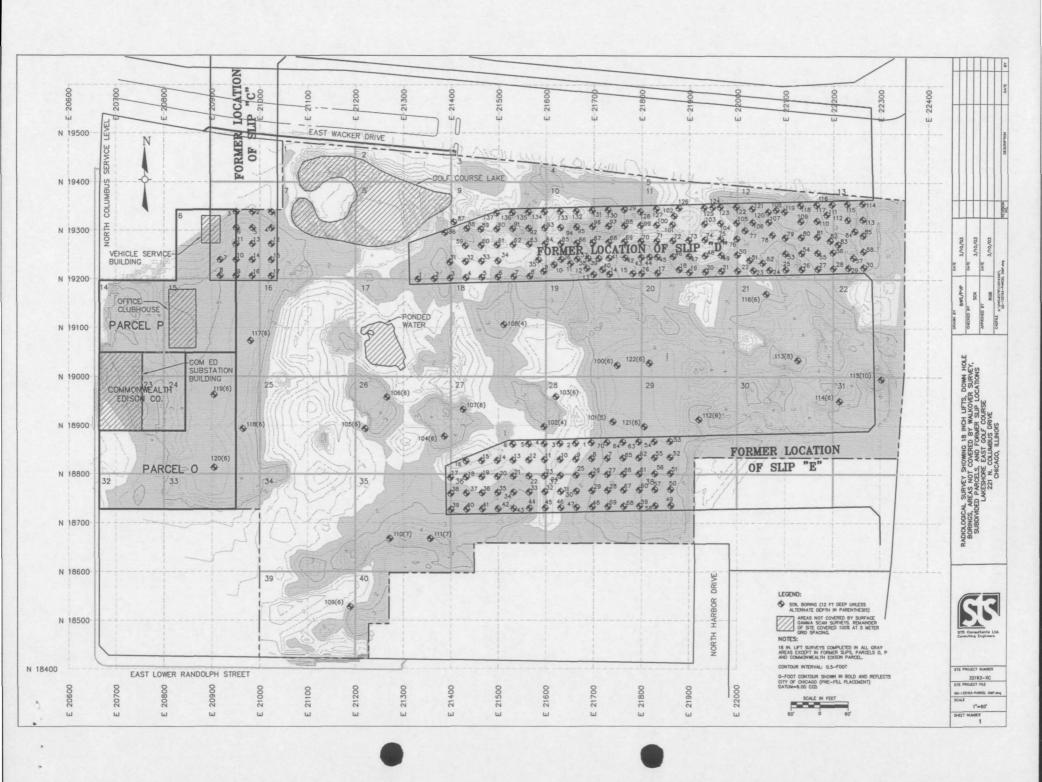
Steven C. Kornder, Ph.D. Senior Project Geochemist

Attachments

cc: Kara Hughes, Lakeshore East, LLC

Sean Bezark, Altheimer & Gray

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC



# STS Consultants, Ltd.

750 Corporate Woods Parkway Vernon Hills, IL 60061 Phone: (847) 279-2500 FAX: (847) 279-2510



### **FACSIMILE TRANSMISSION**

Date:	December 13, 20	002				
To:	Vemeta Simon/F	red Micke	USEPA		Fax #	312-353-9176
	Kara Hughes		Lakesho	re East, LLC	Fax#	31 <b>2-64</b> 2-2773
	Sean Bezark		Althei <b>me</b>	r & Gray	Fax#	312-715-4800
	Barbara Magel		Karagan	is, White & Magel L	.td. Fax#:	312-836-9083
	Mark Krippel		Kerr-Mc0	See Chemical LLC	Fax #:	630-231-3990
Pages	being transmitte	d, incl. Cover:	4			
CC:			Fax No.:			
From:	Steve Komder		Phone:	847-279-2500		
Re:	Lakeshore East,	221 N. Columb	ous Dr., Chicago, IL			
Urgen	nt For Signature	☐For Review	Please Comment/Reply	As Requested	Original to	Follow
Messa	age;					

Attached is the monthly report for the Lakeshore East site at 221 N. Columbus Drive in Chicago, IL. Please contact me with any questions.

**IMPORTANT:** This facsimile is intended only for the of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this facsimile is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return this facsimile to us at the above address via the United States Postal Service. Thank you.



STS Consultants, Ltd. 750 Corporate Woods Parkway Vernon Hills, Illinois 60061-3153 voice 847-279-2500 fax 847-279-2520 web www.stsconsultants.com

December 13, 2002

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE: Progress Report for November 2002, 221 N. Columbus Dr., Chicago, Illinois – STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during November 2002 and activities planned or expected during December 2002.

#### **PROGRESS DURING NOVEMBER 2002**

- Excavation activities proceeded slightly below the water table in the vicinity of boring E-25. To
  investigate the potential presence or absence of radiological material below the water table, four
  casings were installed and surveyed on October 29, 2002. A summary of the downhole gamma
  survey results conducted October 29 was submitted to the USEPA on November 6, 2002.
- The USEPA conducted verification surveys in several remediated areas in November, including several areas in the northern slip area on Friday November 29. Verification signoff forms for the November 29 surveys will be forwarded to the USEPA on completion of the verification sample analysis in early December. The table below summarizes the signoffs received through the end of November from the USEPA for the project.

**Summary of Signed Verification Forms** 

Location	Grid Designation	USEPA Signature Date
	RR-SS, 43-45	11/19/02
North Slip Area	KK-MM.5, 54-56.5	11/19/02
	KK-00, 41-44	11/19/02
	E-K, 1-13	11/19/02
Southern Slip	C-E,9.5-10.5	11/19/02
	F-J, 29-35	10/18/02

- Area and personnel air monitoring was conducted (including background) and submitted with the
  weekly reports (refer to weekly reports for analytical data). No exceedances of the allowable limits
  have been measured.
- Test pits for locating existing utilities were excavated in the southern slip are (former slip E). These areas were surveyed for elevated gamma radiation as the explorations proceeded.

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Dr., Chicago, Illinois.

U.S. Environmental Protection Agency STS Project NO. 1-32193-XC December 13, 2002 Page 2

 Localized grading phase (Phase III) gamma survey activities were initiated on Tuesday November 26. Areas of historical fill without documented radiological impacts were excavated in lifts and surveyed in accordance with Section 5.7 of SOP-210. Specifically, lift surveys were conducted within the historical fill (shaded areas) of grid locations 34, 39 and 40 (refer to Figure 1).

#### PLANNED ACTIVITIES FOR DECEMBER 2002

- The USEPA will be requested to provide comments on the October 29 casing survey conducted in the vicinity of boring E-25 of the southern slip. A report summarizing the results of the survey was submitted to the USEPA on November 6, 2002.
- Excavation of impacted materials in the northern slip area (Slip E) will be completed early in December. These removal actions will complete the excavation of known radiologically-impacted materials at the project site.
- Verification and signoff by the USEPA will be obtained for the remainder of the remediated areas.
- STS will request the USEPA allow area air-monitoring to be discontinued following the completion of the excavation of the known areas of radiologically-impacted soil. This air monitoring would be reinstated if removal activities were required to address newly discovered materials.
- Test pits for locating existing utilities and proposed caissons will be conducted at the project site.
   These areas will be surveyed for elevated gamma radiation as explorations proceed.
- Grading phase (lift) surveys will continue in localized areas prior to the initiation of the site-wide grubbing and grading surveying.
- Grubbing (tree and sod removal) will be initiated in early to mid-December. Site-wide grading and grading surveying (Phase III of the Work Plan) will start following completion of the site grubbing.
- Preparation of the Site Closure Report will begin following completion of the site grading phase surveys (Phase III). It is understood that the closure report is due within 60 days of notice that all field work is complete.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Kornder, Ph.D. Senior Project Geochemist

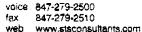
**Attachments** 

cc: Kara Hughes, Lakeshore East, LLC Sean Bezark, Altheimer & Gray

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC



94. P. 94









November 25, 2002

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE: Progress Report for October 2002, 221 N. Columbus Drive, Chicago, Illinois - STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during October 2002 and activities planned or expected during November 2002.

### Progress During October 2002

#### Removal Action Activities

- Approval to mobilize was received in correspondence from the USEPA on September 20, 2002. A revised Work Plant incorporating the USEPA requested modifications was submitted to the USEPA on September 30, 2002.
- Laboratory equipment was moved to the site and calibration completed.
- Site-specific project training was conducted at the site on October 7, 2002 and excavation activities commenced in the southern slip at the largest of the three areas of impacted material (refer to the boring E-25 area in the Work Plan) on October 8, 2002.
- Excavation activities proceeded slightly below the water table in the vicinity of boring E-25. An unfiltered sample of the groundwater within the base of the excavation was collected for analysis (see Attachment 1). To investigate the potential presence of radiological material below the water table, four casings were installed and surveyed on October 29, 2002.
- Verification signoff by the USEPA on the remediation of the boring E-56 area in the southern slip was received on October 18, 2002.
- Area and personnel air monitoring was conducted (including background) and submitted with the weekly reports (refer to weekly reports for analytical data). No exceedances of the allowable limits have been measured.

#### Planned Activities for November 2002

- Excavation of impacted materials in the southern slip area (Slip E) will be completed.
- A recent summary of the downhole gamma survey results conducted October 29, 2002 will be submitted to the USEPA. The USEPA will be requested to provide comments on the October 29
- Verification and signoff by the USEPA will be obtained for the southern slip areas.
- Removal of radiologically-impacted material in the northern slip will proceed and may be completed in late November.
- Verification and signoff by the USEPA will be obtained for the northern slip areas as they are remediated.

STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC November 25, 2002 Page 2

Upon notice that the radiologically-impacted materials requiring excavation have been removed from the site (Phase II of the Work Plan), grading and related surveying activities (Phase III) will commence. Preparation of the Site Closure Report will begin following completion of the site grading (Phase III). It is understood that the closure report is due within 60 days of notice that all field work is complete.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Komder, Ph.D. Senior Project Geochemist

Attachments

cc: Kara Hughes, Lakeshore East, LLC

Sean Bezark, Altheimer & Gray

Barbara Magel, Karaganis, White & Magel Mark Krippel, Kerr-McGee Chemical LLC



SYL St. Louis 13715 Rider Trail North Earth City, MO 63045

Tel 314 298 8566 Fax 314 298 8757 www.sti-nc.com

# ANALYTICAL REPORT

Waste Characterization

Lot #: F2J150191

Rich Berggreen

STS Acquisitions Co. 750 Corporate Woods Parkway Vermon Bills, IL 60061

SEVERE TRENT LABORATORIES, INC.

John D. Powell Project Manager

October 25, 2002

STL St. Louis is a part of Severn Trent Laboratories, Inc.

### Case Narrative LOT NUMBER: F2J150191

This report contains the analytical results for the sample received under chain of custody by STL St. Louis on October 15, 2002. This sample is associated with your Waste Characterization project.

All applicable quality control procedures met method-specified acceptance criteria except as noted below.

This report is incomplete without the case narrative. All results are based upon sample as received, wet weight, unless noted otherwise.

### Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

### Affected Samples:

F2J150191 (1): H-15.5-6

### Affected Methods:

9310 MOD

### Case Narrative:

The MDC is elevated due to the amount of solids in this sample.

# **METHODS SUMMARY**

### P2J150191

PARAMETER

Cs-137 & Hits by Gamma Gamma SPEC MULTI ISO CAL
Gross Alpha/Beta by GFPC Th230/Sr90-Y90 cal

ANALYTICAL PREPARATION METHOD

METHOD

SW846 9310 MOD

SW846 9310 MOD

References:

HASL Health and Safety Laboratory

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

STA ST. WYVV

# SAMPLE SUMMARY

### F2J150191

WO #	Sample#	CLIENT SAMPLE ID	DATE D	SAMP TIME
E92N2	100	H-15.5-6	10/14/02	08:30

#### ROTE(S):

- The analytical results of the samples listed above are presented on the following pages,
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, bayers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests. Solids, solubility, remperature, viscosity, and weight.

# STS ACQUISITIONS CO. dba STS CONS., LTD.

Client Sample ID: H-15.5-6

### Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F2J150191-001

£92N2

Work Order: Matrix:

WATER

Date Collected:

10/14/02 0830

Date Received:

10/15/02 0845

Parameter	Mosult	Qual.	Total Oncert. (2 o+/-)	MOC	Prep Date	Analysis Date	Match #	73d <b>4</b>
GROSS A/B BY	PPC 5W846 9310	MOD	р¢	i/L	9310 M			
Grose Alpha	74	•	16	10	10/21/0	10/24/02	2294264	
Gross Seta	82		12	11	10/21/02	10/24/02	2294264	
Gamma Cs-137 6	Hits by HASL	300 MOD	Эq	i/L	300 MO	Ď		
Cesium 137	4.3	σ	6,5	13	10/22/02	10/22/02	2295346	

NOTE (S)

Data are incomplete without the case marrative.

MDC is determined by instrument parformance only. Bold results are greater than the MDC

Result is less than the sample detection limit.

# STS ACQUISITIONS CO. dba STS CONS., LTD.

Client Sample ID: H-15.5-6 DUP

# Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F2J15C191-001X

Work Order: Matrix:

E92N2 WATER

Date Collected:

10/14/02 0830

Date Received: 10/15/02 0845

Total	
Opoert.	

Parameter	Result	Qual	Uncert. (2 a+/-)	MDC	Frep Date	Analysis Date	Batch #	rid t
Gamma Cs-137 6	Hits by HASL 3	00 MOD	pC	i/L	300 160	b		
Cesium 137	-3.€	Ü	6.6	11	10/22/02	10/22/02	2295346	
GROSS A/B BY G	FPC SW846 9310	140D	pC:	i/L	9310 M	<b>0</b> 0		
Gross Alpha	74		16	10	10/21/02	10/24/02	2294264	
Gross Bata	73		12	10	10/21/02	10/24/02	2294264	

NOTE (S)

Data are imposplete without the case narrative.

MDC is determined by instrument performance only. Bold results are greater than the MDC

Result is less than the sample detection limit.

### METHOD BLANK REPORT

# Severn Trent Laboratories - Radiochemistry

Client Lot ID:

F2J150191

Matrix:

WATER

			Total		Lab Sample ID			
Parameter	Result	Qual	(2 c+/-)	#EDC	Frep Date	Amelysis Date	Hatch (	rid *
Gamma Cs-131	6 Hits by HASL	300 MOD	pCi/L	300 MOD		F2J2	20000-34	
Cesium 137	0.8	υ	6.3	12	10/22/02	10/22/02	2295346	
GROSS A/B BY	GFPC SW846 931	O MOD	pCi/L	9310 MOD		F2J2	10000-264	lB
Gross Alpha	0.43	$\boldsymbol{v}$	0.53	0.85	10/21/02	10/24/02	2294264	
Gross Beta	0.5	ប	1.0	1.7	10/21/02	10/24/02	2204254	

MOTE (S)

Data are incomplate without the case mazzative.

HDC is determined using instrument performance only Bold results are greater than the MDC

U Result is less than the sample detection limit.

# Laboratory Control Sample Report

### Severn Trent Laboratories - Radiochemistry

Client Lot ID:

F2J150191

Matrix:

WATER

			Total		Lab Sample II		
Parameter	Spike Ameunt	Result	(2 g+/=)	NDC	t Yld t Rec	QC Control Limits	
GROSS A/B BY GFF	: SW846 9310 MOD	)	pCi/L	9310 MOD	F2J2	10000-264C	
Gross Alpha	49.5	42.3	5.1	0.7	85	(63 - 139	
	Batch #:	2294264		Amalysis Date	: 10/24/02		
GROSS A/B BY GFP	8W846 9310 MOD	)	pCi/L	9310 MOD	F2J2	10000-264C	
Gross Beta	97.0	98	10	2	101	(79 - 116)	
	Batch #:	2294264		Apalysis Date	: 10/24/02		
Games Co-137 & Hi	ta by HASL 300	MOD	pCi/L	300 3400	FZJ2:	20000-346C	
Americium 241	309000	314000	33000	400	102	(82 - 118)	
Cesium 137	126000	127000	17000	200	101	(90 - 110)	
Cobalt 60	223000	221000	23000	200	99	(90 - 110)	
	Batch #:	2295346		Analysis Oste	: 10/22/02		

#### DUPLICATE EVALUATION REPORT

### Severn Trent Laboratories - Radiochemistry

Client Lot ID:

F2J150191

Matrix:

WATER

Date Sampled:

10/14/02

Date Received: 10/15/02

		Total			Total	•	C Sample ID	
Peraneter	<u> AMPLE</u> Bosult	Unce=±. (2 g +/-)	₹1d	DUPLICATS Result	Oncert. (2 φ+/-)	· Tla	Precisi	.ce
Gamma Cs-137 &	Hits by HASL 300	HOD	pCi/L	300 MOD		F2	J150191-00	1
Cesium 137	4.3 U	6.5		- <b>3.6</b> 0	6.6		2,24	<b>LRPD</b>
	Batch #:	2295346	(Sample)	2295346 (	Duplicate)			
CROSS A/B BY GI	PC SW846 9310 MOD		pCi/L	9310 MOD		¥2	J150191-00	)1
Gross Alpha	74	16		74	1.6		0.5	\$RPD
Gross Beta	82	12		75	12		8	\$RPD
	Batch #:	2294264	(Sample)	2294264 (	Duplicate)			

NOTE (S)

Data are incomplete without the case marrative. Calculations are performed before rounding to avoid round-off error in calculated results

Result is less than the sample detection limit.

### MATRIX SPIKE REPORT

### Severn Trant Laboratories - Radiochemistry

Client Lot Id:

Matrix:

F2J150191

WATER

Date Sampled:

10/14/02

Date Received: 10/15/02

			Total			Total	QC Sample ID				
Parameter	-	Spike Result	Uncert. (2g +/-)		Sample Result	Uncert.	#AITD	4REC	QC Control Limita		
GROSS A/B BY GFPC SW84	6 9310 MOD		pCi/L	93	10 MOD		¥	2J150191	-001		
Gross Alpha	254	366	48		74	16		115	(63 - 139)		
	Batch #:	2294264	An	alysis D	ate:	10/24/02	_				
GROSS A/B BY GFPC SW84	5 9310 MQD		pCi/L	93	10 MOD		7	2J150191	-001		
Gross Beta	497	625	65		82	12		109	(79 - 116)		
	Batch #:	2294264	An	alysis D	ate:	10/24/02					

NOTE (S)

LOT # F2J150191

Data are incomplete without the case marrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

PSL20300 Page 1

SEVERN TRENT LABORATORIES, INC

CLIENT ANALYSIS SUMMARY

STI, St. Louis

User Id.: ZAHNERM

STL St. Louis

User Id.: ZAHNERM

CLIENT: 378708 STS ACQUISITIONS CO. dba STS CONS., LTD. QUOTE/SAR #: 43710

PROJECT MANAGER: John D. Powell LAB ID: F-2J150191-001

PROJECT #: WORK ORDER: E92N2

REPORT TO: RECEIVING DATE: 10/15/02 Rich Berggreen

P.O. NUMBER: SAMPLING DATE: 10/14/02

SITE: Waste Characterization ANALYTICAL DUE DATE: 10/22/02N

REPORT DUE DATE: 10/22/02 AMOUNT REC"D: 2XLG

STORAGE LOC: RAD PRIORITY: 07

SAMPLING TIME: 8:30 LOT COMMENTS: MATRIX: WATER RECEIVING TIME:

USAF MATRIX:

SAMPLE ID: 1 LITER GLASS H-15.5-6
QC PACKAGE: Report 10.5-5-6

SDG# :

SAMPLE COMMENTS:

Beginning Depth: .00 Ending Depth: .00

WRK REQUEST EXTRACTION ANALYSIS \*\*\*\*\* ANALYSIS \*\*\*\*\* LOC DATE EXP DATE EXP DATE

GROSS A/B BY GFPC SW846 9310 MOD 06 10/15/02 0/00/00 4/12/03

PREP & SEP RC-9020, CT SL-13021

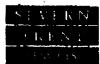
(I-FR-ZA-01) E92N2-1-AA Protocol: A QC Program: STANDARD TEST SET

Gamma Cs-137 & Hits by HASL 300 MOD 06 10/15/02 0/00/00 4/12/03

PREP RC5016/RC0025 , CT RD0101

STL: Cs-137 by Gamma

(I-G7-0A-01) E92N2-1-AC Protocol: A QC Program: STANDARD TEST SET



# Severn Trent Laboratories, Inc.

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Sample I.D. No. and Description iontainers for each sample may be combined on one lin	o) Date	Time	¥	Acurous	Sec	30		5	EOM!	Ž	NEOH	200 S	<u> </u>	1	1	200	7	9										
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Lot No.: F275019/

# Condition Upon Receipt Form St. Louis Laboratory

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	ion/Variance (Circle "Y" for yes and "N" for n		ee notes for explanati	on):
1. \$	N Sample received in undamaged condition	5. <b>Q</b> N	Sample volume suffi	icient for analysis.
2.	N Sample received within 4-C ± 2-C*	6 (Ā)Й	Sample received with	h Chain of Custody.
	Rocord temperature:	7 📆	Chain of Custody ma	arches sample IDs on containers.
3.	Y N(N/) Sample received with proper pH**.	8. YN	Custody seal receive	d intact and tamper evident on cooler.
4. (	Y)N Sample received in proper containers.	9. Y 🕅	Custody seal receive	d intact and tumper evident on bottles.
* T	Versioner Dans Nag Afficial d. Wallace has a			
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SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED

IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR

INITIALS AND THE DATE NEXT TO THAT ITEM

SL-ADMIN-0004, Revised 5/24/01

\*\*SUMMIN-0004, Revised 5/24/01

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Please contact me with any questions.

SS

750 Corporate Woods Parkway Vernon Hills, IL 60061 Phone: (847) 279-2500 FAX: (847) 279-2510

### **FACSIMILE TRANSMISSION**

Date:	November 25, 2	002				
To:	Vemeta Simon/F	red Micke	USEPA		Fax #:	312-353-9176
	Kara Hughes		Lakeshor	e East, LLC	Fax #:	312-642-2773
	Sean Bezark		Altheime	r & Gray	Fax #:	312-715-4800
	Barbara Magel		Karagani	s, White & Magel (	Ltd. Fax#:	312-836-9083
	Mark Krippel		Кеп-МсС	See Chemical LLC	Fax#:	630-231-3990
Pages I	peing transmitte	d, incl. Cover:	16			
CC:	·		Fax No.:			
From:	Steve Komder		Phone:	847-279-2500		·
Re:	Lakeshore East,	221 N. Columb	ous Dr., Chicago, IL			
Urgeni	t 🔲 For Signature	For Review	Please Comment/Reply	As Requested	Original to	Follow
Messa	ge:					

IMPORTANT: This facsimile is intended only for the of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this facsimile is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and

Attached is the monthly report for the Lakeshore East site at 221 N. Columbus Drive in Chicago, IL.

return this facsimile to us at the above address via the United States Postal Service. Thank you.



January 9, 2002

Ms. Verneta Simon, On-Scene Coordinator Mr. Fred Micke, On-Scene Coordinator US Environmental Protection Agency - Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE: Progress Report for December 2002, 221 N. Columbus Drive, Chicago, Illinois - STS Project No. 1-32193-XC

Dear Ms. Simon and Mr. Micke:

In accordance with the Work Plan<sup>1</sup> STS Consultants, Ltd. (STS) is providing a monthly progress report that identifies actions taken during December 2002 and activities planned or expected during January 2003.

#### **PROGRESS DURING DECEMBER 2002**

- The excavation of the known areas of radiologically-impacted soil (Phase II) was completed in mid-December. A total of 156-3/4 containers of impacted soil were loaded as of the end of December.
- Verification signoff by the USEPA on the remediation of numerous areas in the former northern slip area was obtained in December. The table below summarizes the Phase II signoffs received from the USEPA through the end of December for the project.

**Summary of Signed Verification Forms** 

Location	Grid Designation	USEPA Signature Date
	NN-PP, 42-45	12/10/2002
	JJ-00, 8-11	12/10/2002
	JJ-00, 11-13.5	12/10/2002
	JJ-00, 13.5-16	12/10/2002
	CC-FF, 1-4	12/10/2002
	EE-FF, 12-14	12/10/2002
	SS-UU, 32-34	12/10/2002
	XX, 18	12/10/2002
Northern Slip Area	GG-HH.5, 32-38	12/3/02
	HH.5-KK, 32-38	12/3/02
	KK-LL.5, 32-38	12/3/02
	LL.5-MM, 32-38	12/3/02
	OO-TT,17-19.5	12/3/02
	OO-TT, 19.5-22	12/3/02
	RR-SS, 43-45	11/19/02
	KK-MM.5, 54-56.5	11/19/02
	KK-00, 41-44	11/19/02
	E-K, 1-13	11/19/02
Southern Slip	C-E,9.5-10.5	11/19/02
	F-J, 29-35	10/18/02

<sup>&</sup>lt;sup>1</sup> STS (revised September 30, 2002) Work Plan for Investigation and Removal of Radiologically Impacted Soil, Lakeshore East LLC, 221 N. Columbus Drive, Chicago, Illinois.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC January 9, 2003 Page 2

- With the completion of the excavation of the impacted materials, area air monitoring was
  discontinued based on verbal approval by USEPA on December 6. The verbal approval was
  confirmed in writing by USEPA on December 13, 2002. Personal air monitoring has been continued
  on a single individual within each field crew involved in gamma surveys for test pits and grading.
- A section of granite cobble roadway was exposed during the lift survey in the southern portion of grid 26. A gamma survey indicated that elevated gamma measurements of about 20,000 cpm was associated with the cobbles. The USEPA was contacted on December 13 and agreed that granite cobbles did not have to be handled as impacted material.
- Grading phase (Phase III) gamma survey activities continued in accordance with Section 5.7 of SOP-210. Several isolated areas of slightly elevated gamma readings were measured in grids 26, 28, 35 and 36 during the lift survey process. These areas were remediated on December 19, 2002. A total of eight "super-sacks" were filled during the excavation process. Excavation area air and personal monitoring was conducted during the remediation of the radiologically-impacted soils. The USEPA completed verification surveys and signed notification of successful verification survey forms on December 23, 2002 (refer to verification forms for areas 26C-D, 28A, and 35B-36A).
- Grading phase lift survey activities are currently in progress in grid locations 28 and 36. Surveys of
  the historical fill in grid locations 16, 17, 25, 26, 27, 34, 35, 37, 38, 39 and 40 are complete (refer to
  Figure 1). Additionally, the gamma surveys conducted following the grubbing operations completed
  the grading phase survey requirements in grids 1, 2 and 5. These areas did not require additional
  grading following grubbing because the layer of historical fill material was absence or presence only
  in a very thin layer.
- Site-wide topsoil (upper 6") and tree removal (grubbing) was initiated the week of December 16. A
  gamma survey was conducted of the soil surface exposed following the grubbing process. No
  elevated gamma readings were measured during the grubbing surveys. The grubbing activities were
  completed on December 24, 2002.
- Test pits were excavated to locate existing utilities and proposed caissons. The historical fill at the
  excavations was surveyed for elevated gamma radiation as the work proceeded. Elevated gamma
  readings were measured at five of the proposed caisson locations. These areas were within the
  western end of the southern slip in grid location 36 (refer to Figure 1). The areas have been ropedoff as "exclusion zones" until remediation and verification surveys are complete.

### **PLANNED ACTIVITIES FOR JANUARY 2003**

- Test pits for locating existing utilities and/or proposed caissons within historical fill or the former slip areas will be conducted. These areas will be surveyed for elevated gamma radiation as the explorations proceed.
- Grading phase (lift) surveys of historical fill will continue to be conducted at the site.
- The USEPA will be requested to provide comments regarding the casing survey (STS, 11/6/02) conducted below the watertable in the boring E-25 area of the southern slip.
- Excavation activities will take place as necessary to remediate radiologically-impacted soil discovered during the grading phase lift surveys or the utility/proposed caisson location investigations.

U.S. Environmental Protection Agency STS Project No. 1-32193-XC January 9, 2003 Page 3

- In accordance with the approval issued by the USEPA on December 13, 2002, area air monitoring will only be conducted at the site during excavation activities involving radiologically impacted soils. Personal air monitoring will continue to be performed during excavation activities as well as during grading and test pit investigations.
- The USEPA will be requested to conduct verification surveys following the completion of the remediation of newly discovered areas of radiologically-impacted soil.

Preparation of the Site Closure Report will begin following completion of the removal of radiologically-impacted materials requiring excavation and the grading survey activities (Phase III). It is understood that the closure report is due within 60 days of notice that all fieldwork is complete.

Please contact us at 847-279-2500 with any questions regarding this report.

Regards,

STS CONSULTANTS, LTD.

Steven C. Kornder, Ph.D.
Senior Project Geochemist

Attachments

cc: Kara Hughes, Lakeshore East, LLC Sean Bezark, Altheimer & Gray Barbara Magel, Karaganis, White & Magel

Mark Krippel, Kerr-McGee Chemical LLC

